Gateway®



User Guide

Gateway E-4300

Contents

1 Getting Help 1

Help and Support 2
Searching for a topic 3
Using Your Computer guide 3
Online help 4
Gateway contact information 4

2 Checking Out Your Gateway Computer 5

Micro Tower 6
Front 6
Back 8
Mid Tower 11
Front 11
Back 13
Desktop to tower conversion 16
Locating your serial number 17
Microsoft Certificate of Authenticity 18
Finding your specifications 18
Accessories 19

3 Getting Started 21

Working safely 22
Reducing eye strain 22
Setting up your computer desk and chair 23
Setting up your computer and computer accessories 23
Sitting at your computer 23
Avoiding discomfort and injury from repetitive strain 24
Protecting from power source problems 24
Checking the voltage selection 24
Starting your computer 26
Waking up your computer 27
Turning off your computer 27
Restarting (rebooting) your computer 28
Using the keyboard 29
Standard keyboard 29
Multifunction keyboard 30
Adjusting the volume 32
Connecting the modem 32
Connecting to a wired Ethernet network 33
Installing a printer, scanner, or other peripheral device 34

4 Using Drives and Ports 35

Using the diskette drive 36
Using the Zip drive 38
Using the memory card reader 39
Memory card types 39
Inserting a memory card 39
Using the CD or DVD drive 41
Identifying drive types 41
Inserting a CD or DVD 42
Playing a CD 43
Playing a DVD 43
Creating CDs and DVDs 43

5 Maintaining Your Computer 45

Caring for your computer 46
Updating Windows 46
Protecting your computer from viruses 47
Cleaning your computer 49
Cleaning the exterior 49
Cleaning the keyboard 50
Cleaning the monitor 50
Cleaning the mouse 50
Cleaning CDs or DVDs 52
Restoring your system 52
Preventing static electricity discharge 53
Maintaining the Micro Tower case 54
Opening the case 54
Closing the case 56
Installing memory 57
Replacing the system battery 59
Maintaining the Mid Tower case 60
Opening the case 60
Closing the case 61
Removing the front bezel 61
Installing memory 64
Replacing the system battery 65

6 Troubleshooting 67

Safety guidelines 68
First steps 68
Troubleshooting 69
Add-in cards 69
Audio 69
Battery 69
CD or DVD drives 69

Computer 71
Diskette drive 71
DVD drives 72
File management 72
Hard drive 73
Internet 74
Keyboard 75
Memory 75
Memory card reader 76
Modem (dial-up) 76
Monitor 79
Mouse 80
Networks 81
Passwords 81
Power 81
Printer 81
Sound 83

7 Networking Your Computer 85

Introduction to networking 86
Using a network 86
Selecting a network connection 87
Creating an Ethernet network 94
Installing Ethernet cards and drivers 94
Making sure your broadband connection works 95
Naming the computers and the workgroup 95
Configuring the TCP/IP protocol 96
Setting up a wireless Ethernet network 99
Setting up a wired Ethernet network 106
Configuring your router 108
Testing your network 109
Sharing your resources 110
Sharing an Internet connection 110
Sharing drives and printers 113
Using the network 115
Connecting to hotspots 118
Troubleshooting Your Ethernet network 119
Wired Ethernet network 119
Wireless Ethernet network 120

A Safety, Regulatory, and Legal Information 123

Index 129

Chapter 1

Getting Help



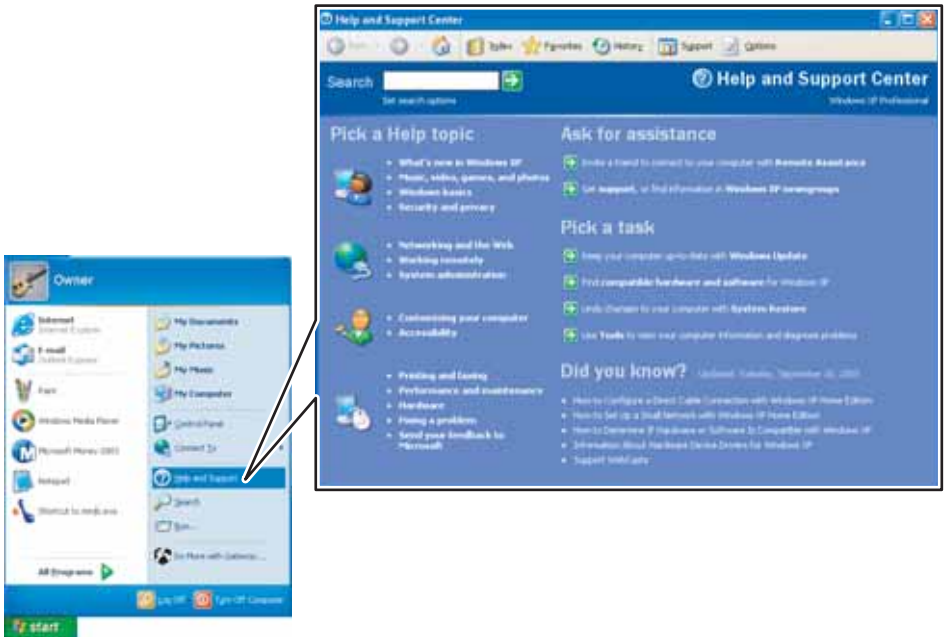
- Using the Gateway Web site
- Using Help and Support
- *Using Your Computer* guide
- Using Do More With Gateway
- Using online help
- Contacting Gateway

Help and Support

Your computer includes *Help and Support*, an easily accessible collection of help information, troubleshooters, and automated support. Use Help and Support to answer questions about Windows and to help you quickly discover and use the many features of your Gateway computer.

To start Help and Support:

- Click **Start**, then click **Help and Support**. Help and Support opens.



You can find help information by clicking a link, performing a search, or browsing the index.

Searching for a topic

To search for a topic in Help and Support, type a word or phrase (keyword) in the **Search** box located at the top of any Help and Support screen, then click the arrow  button.

For each search, you receive the following search result types:

- Suggested Topics - These topics are located in Help and Support and are relevant to your search topic.
- Full-text Search Matches - These topics are located in Help and Support and contain the words you entered in the **Search** box.
- Microsoft Knowledge Base - These topics are located on the Microsoft Web site and contain the words you entered in the **Search** box. You must be connected to the Internet to search for and access these topics.

To view a list of your search results, click the results header for the type of results you want to view.

To view a topic, click the topic name in the **Search Results** list.

Using Your Computer guide

In addition to this guide, the *Using Your Computer* guide has been included on your hard drive. This guide includes information on using Windows, using the Internet, sending a fax, and changing power-saving settings as well as other topics.

To access the Using Your Computer guide:

- Click **Start**, **All Programs**, then click **Gateway Documentation**.

Online help

Many programs provide information online so you can research a topic or learn how to perform a task while you are using the program. You can access most online help information by selecting a topic from a **Help** menu or by clicking a **Help** button.



You can search for information by viewing the help contents, checking the index, searching for a topic or keyword, or browsing through the online help.



Gateway contact information

For Technical Support, see the *Gateway Business Service Plans* guide that came with your system.

Chapter 2

Checking Out Your Gateway Computer

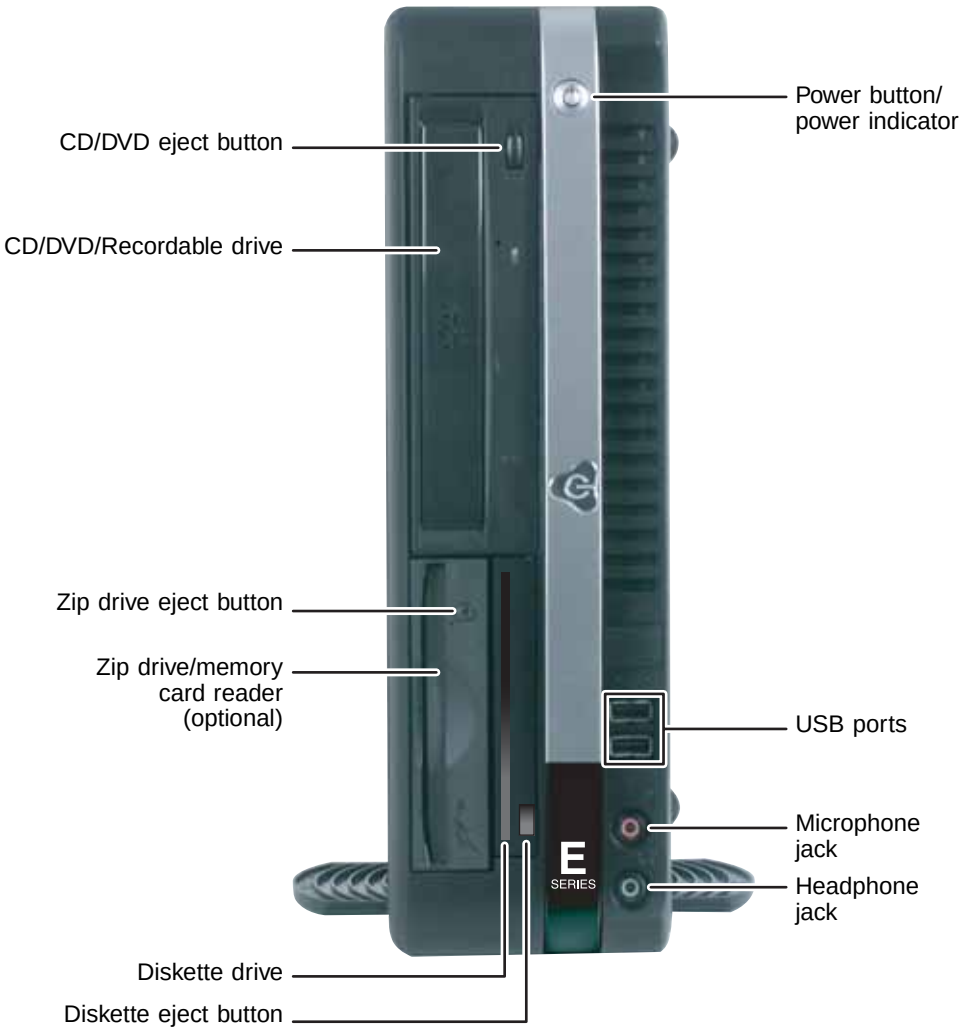


- Identifying features
- Locating your computer serial number
- Locating the Microsoft Certificate of Authenticity
- Locating the specifications for your computer
- Purchasing accessories

Micro Tower

Front

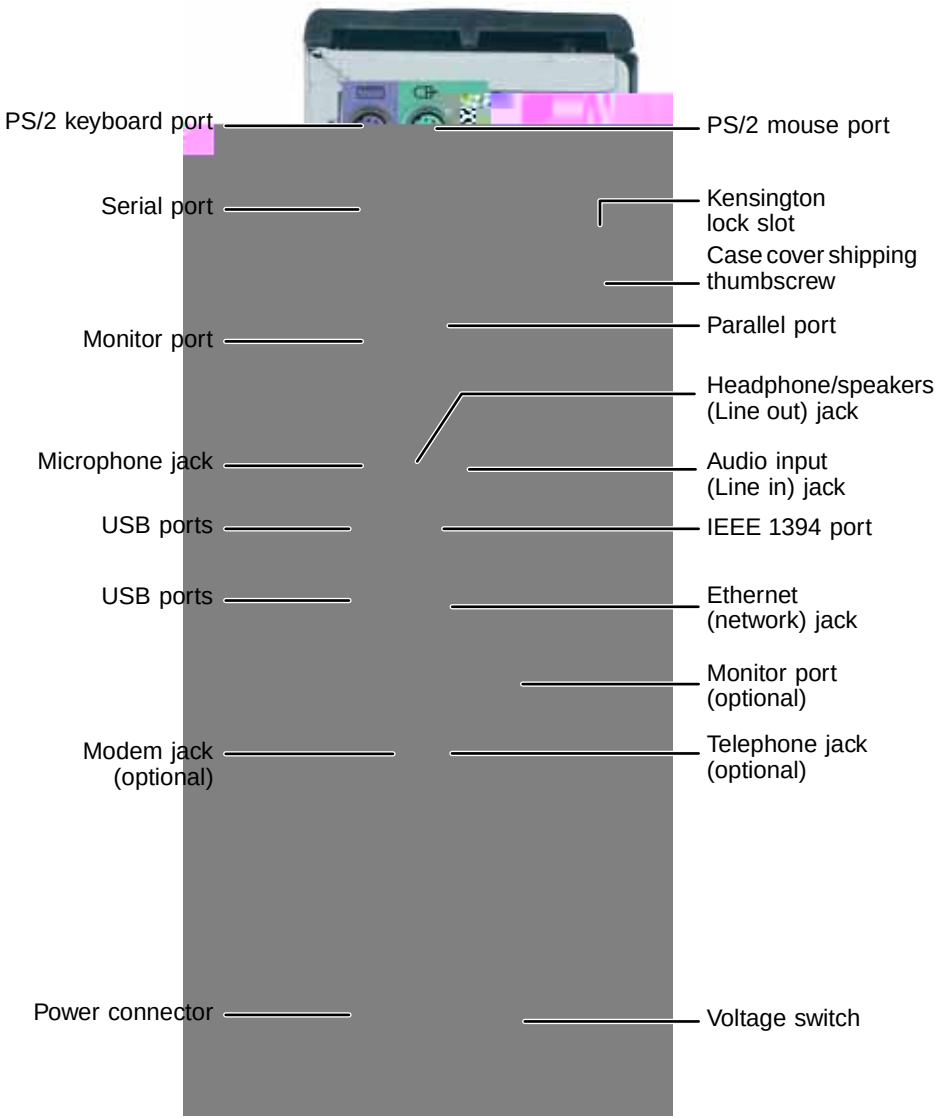
Your computer includes the following components.



Component	Icon	Description
CD/DVD/Recordable drive		Use this drive to listen to audio CDs, install games and programs, watch DVDs, and store large files onto recordable discs (depending on drive type). This drive may be a CD, recordable CD, DVD, or recordable DVD drive. To identify your drive type and for more information about your drive, see “Identifying drive types” on page 41.
Power button / Power indicator		Press this button to turn the power on or off. You can also configure the power button to operate in Standby/Resume mode or Hibernate mode. The button lights when the computer is turned on.
Diskette drive		Insert a standard 3.5-inch diskette into the optional diskette drive. For more information, see “Using the diskette drive” on page 36.
Zip drive		Use this drive to store larger files on Zip disks. For more information, see “Using the Zip drive” on page 38.
Memory card reader (optional)		Insert a memory card from a digital camera, MP3 player, PDA, cellular telephone, or other devices into the memory card reader. For more information, see “Using the memory card reader” on page 39.
USB ports		Plug a USB (Universal Serial Bus) device (such as a printer, scanner, camera, keyboard, or mouse) into this port. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
Microphone jack (red or pink)		Plug a microphone into this jack. This jack is color-coded red or pink.
Headphone jack (green)		Plug powered, analog front speakers, an external amplifier, or headphones into this jack. This jack is color-coded orange.

Back

Your computer includes the following components:



Component	Icon	Description
Power connector		Plug the power cord into this connector.
Voltage switch		Before turning on your computer, make sure that this switch is in the correct position for the correct power available. The switch is preset at the factory with the correct voltage for your area. In the United States, the utility power is supplied at a nominal 115 volts at 60 Hz. The power supply should always be set to this when your computer is operating in the United States. In other areas of the world, such as Europe, the utility power is supplied at 230 volts at 50 Hz. If your computer is operating in an environment such as this, the voltage switch should be moved to 230.
PS/2 keyboard port		Plug a Personal System/2® (PS/2) keyboard into this port.
Serial port		Plug a serial device (such as a digital camera) into this port. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
Monitor port		Plug a monitor into this port.
Microphone jack (red or pink)		Plug a microphone into this jack.
Headphone/ speakers (line out) jack (green)		Plug powered speakers, an external amplifier, or headphones into this jack.
Audio input (Line in) jack (blue)		Plug an external audio input source (such as a stereo) into this jack so you can record sound on your computer.
USB ports		Plug USB (Universal Serial Bus) devices (such as a printer, scanner, camera, keyboard, or mouse) into these ports. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
Telephone jack (optional)		If your modem has a telephone jack, plug the cable for a telephone into this jack.
Case cover shipping thumbscrew		Remove this screw before opening the case.

Component	Icon	Description
PS/2 mouse port		Plug a PS/2 mouse into this port.
Kensington™ lock slot		Secure your computer to an object by connecting a Kensington cable lock to this slot.
Parallel port		Plug a parallel device (such as a printer) into this port. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
IEEE 1394 ports (optional)		Plug an IEEE 1394 (also known as Firewire® or i.Link®) device (such as a digital camcorder) into these 4-pin IEEE 1394 ports. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
Ethernet (network) jack		Plug a 10/100 Ethernet network cable or a device (such as a DSL or cable modem for a broadband Internet connection) into this jack. For more information, see “Networking Your Computer” on page 85 or see “Learning about the Internet” in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.
Modem jack (optional)		Plug a modem cable into this jack.

Mid Tower

Front

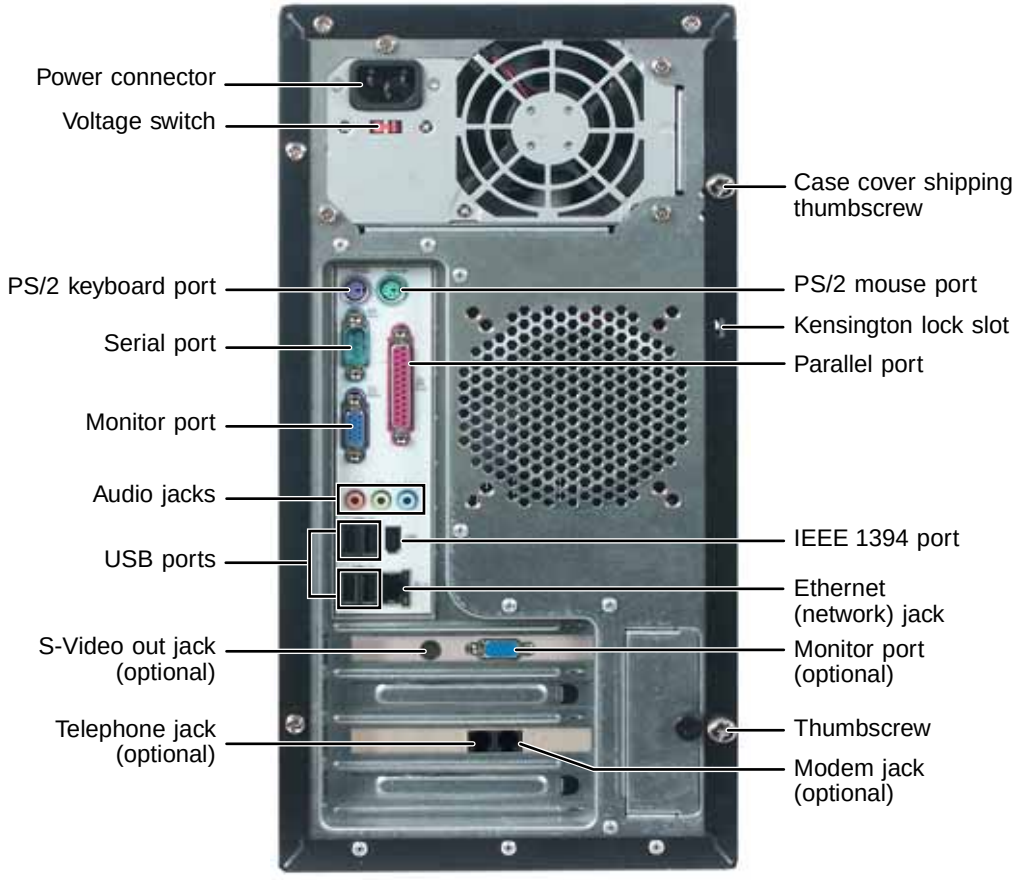
Your computer includes the following components.



Component	Icon	Description
CD/DVD/Recordable drive		Use this drive to listen to audio CDs, install games and programs, watch DVDs, and store large files onto recordable discs (depending on drive type). This drive may be a CD, recordable CD, DVD, or recordable DVD drive. To identify your drive type and for more information about your drive, see “Identifying drive types” on page 41.
Power button / Power indicator		Press this button to turn the power on or off. You can also configure the power button to operate in Standby/Resume mode or Hibernate mode. The button lights when the computer is turned on.
Diskette drive		Insert a standard 3.5-inch diskette into the optional diskette drive. For more information, see “Using the diskette drive” on page 36.
Zip drive		Use this drive to store larger files on Zip disks. For more information, see “Using the Zip drive” on page 38.
Memory card reader (optional)		Insert a memory card from a digital camera, MP3 player, PDA, cellular telephone, or other devices into the memory card reader. For more information, see “Using the memory card reader” on page 39.
USB ports		Plug a USB (Universal Serial Bus) device (such as a printer, scanner, camera, keyboard, or mouse) into this port. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
IEEE 1394 port		Plug an IEEE 1394 (also known as Firewire® or i.Link®) device (such as a digital camcorder) into this 4-pin IEEE 1394 port. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
Microphone jack (pink or red)		Plug a microphone into this jack.
Headphone jack (green)		Plug powered, analog front speakers, an external amplifier, or headphones into this jack.

Back

Your computer includes the following components:

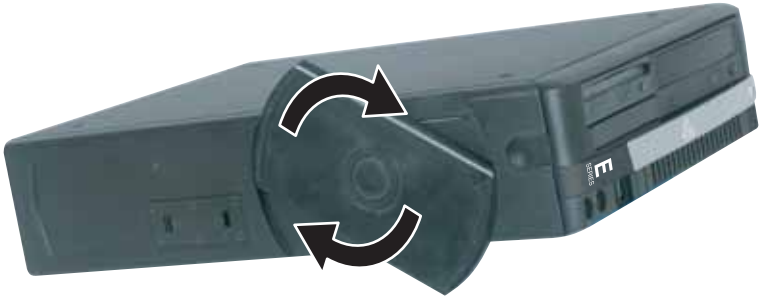


Component	Icon	Description
Power connector		Plug the power cord into this connector.
Voltage switch		Before turning on your computer, make sure that this switch is in the correct position for the correct power available. The switch is preset at the factory with the correct voltage for your area. In the United States, the utility power is supplied at a nominal 115 volts at 60 Hz. The power supply should always be set to this when your computer is operating in the United States. In other areas of the world, such as Europe, the utility power is supplied at 230 volts at 50 Hz. If your computer is operating in an environment such as this, the voltage switch should be moved to 230.
PS/2 keyboard port		Plug a Personal System/2® (PS/2) keyboard into this port.
Serial port		Plug a serial device (such as a digital camera) into this port. For more information, see "Installing a printer, scanner, or other peripheral device" on page 34.
Monitor port		Plug a monitor into this port.
Audio jacks		Plug a microphone (red or pink jack) and headphones or speakers (green jack) into these jacks.
USB ports		Plug USB (Universal Serial Bus) devices (such as a printer, scanner, camera, keyboard, or mouse) into these ports. For more information, see "Installing a printer, scanner, or other peripheral device" on page 34.
S-Video out jack (optional)		Plug a standard S-Video cable into this optional jack. Plug the other end of the cable into an S-Video jack on a television.
Telephone jack (optional)		If your modem has a telephone jack, plug the cable for a telephone into this jack.
Case cover shipping thumbscrews		Remove these screws before opening the case.
PS/2 mouse port		Plug a PS/2 mouse into this port.
Kensington™ lock slot		Secure your computer to an object by connecting a Kensington cable lock to this slot.

Component	Icon	Description
Parallel port		Plug a parallel device (such as a printer) into this port. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
IEEE 1394 port		Plug an IEEE 1394 (also known as Firewire® or i.Link®) device (such as a digital camcorder) into this 4-pin IEEE 1394 port. For more information, see “Installing a printer, scanner, or other peripheral device” on page 34.
Ethernet (network) jack		Plug a 10/100 Ethernet network cable or a device (such as a DSL or cable modem for a broadband Internet connection) into this jack. For more information, see “Networking Your Computer” on page 85 or see “Learning about the Internet” in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.
Modem jack (optional)		Plug a modem cable into this jack.

Desktop to tower conversion

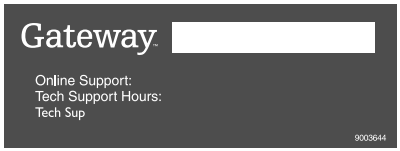
You can convert your case from desktop to tower configuration using the rotating foot included with your system.



Locating your serial number

The label on the side of your computer case contains information that identifies your computer serial number. Gateway Technical Support will need this information if you call for assistance.





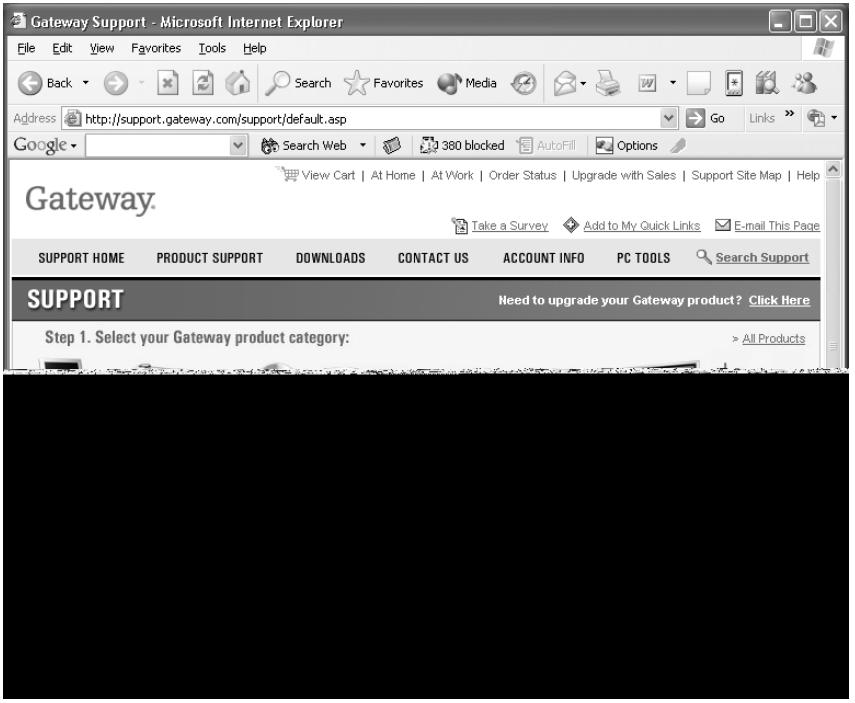
Microsoft Certificate of Authenticity

The Microsoft Certificate of Authenticity label found on the back or side of your computer includes the product key code for your operating system.



Finding your specifications

For more information about your computer, such as memory size, memory type, and hard drive size, visit Gateway's *eSupport* page at support.gateway.com. The *eSupport* page also has links to additional Gateway documentation and detailed specifications.



Accessories

To order accessories, visit the Accessory Store at accessories.gateway.com.

Memory

Large programs, such as multimedia games or graphics programs, use a lot of memory. If your programs are running more slowly than you think they should, try adding more memory.

Printers

You can attach almost any type of printer to your computer. The most common types are inkjet and laser printers, which print in color or black and white. See "Installing a printer, scanner, or other peripheral device" on page 34 for more information about attaching a printer.

Inkjet printers and cartridges are relatively inexpensive, but they are slower than laser printers. Using an inkjet color printer, you can print pictures, banners, and greeting cards, as well as documents.

Laser printers and cartridges are more expensive, but they print much faster than inkjet printers. Laser printers are better than inkjet printers when you are printing large documents.

Storage Devices

If you need additional storage space or you want to back up your files, you can add storage devices to you computer.

With a recordable CD or DVD drive, you can free up hard drive space by backing up files, then removing them from your hard drive. Writable CDs can hold as much as 700 MB of data. Single layer writable DVDs can hold as much as 4700 MB of data. Dual layer writable DVDs hold as much as 8500 MB of data. For more information about using recordable drives, see "Creating CDs and DVDs" on page 43.

If you need to back up your entire system, you probably need a tape backup (TBU) drive. TBU drives, like tape recorders, use magnetic tape cartridges to store data. Tape drive cartridges can store 2 GB, 20 GB, 40 GB, 130 GB, or more of data.

If you want to increase your internal storage space, try replacing your existing hard drive with a larger drive.

USB flash drive

Use a USB flash drive for storing files or transferring files to another computer.

Uninterruptible power supplies

A standby, uninterruptible power supply (UPS) protects your computer from data loss during a total power failure. A UPS uses a battery to keep your computer running temporarily during a power failure so you can save your work and shut down your computer correctly. A UPS may also provide protection from power surges.

Chapter 3

Getting Started



- Using your computer safely
- Protecting your computer from power source problems
- Turning your computer on and off
- Adjusting the volume
- Connecting the modem and network
- Installing peripheral devices

Working safely

Before using your computer, read the following recommendations for setting up a safe and comfortable work area and avoiding discomfort and strain.



Reducing eye strain

Sunlight or bright indoor lighting should not reflect on the monitor screen or shine directly into your eyes.

- Position the computer desk and monitor so you can avoid glare on your screen and light shining directly into your eyes. Reduce glare by installing shades or curtains on windows, and by installing a glare screen filter on your monitor.
- Use soft, indirect lighting in your work area. Do not use your computer in a dark room.
- Avoid focusing your eyes on your computer screen for long periods of time. Look away from your computer occasionally, and try to focus on distant objects.

Setting up your computer desk and chair

When you are setting up your computer desk and chair, make sure that the desk is the appropriate height and the chair helps you maintain good posture.

- Select a flat surface for your computer desk.
- Adjust the height of the computer desk so your hands and arms are positioned parallel to the floor when you use the keyboard and mouse. If the desk is not adjustable or is too tall, consider using a keyboard drawer.
- Use an adjustable chair that is comfortable, distributes your weight evenly, and keeps your body relaxed.
- Position your chair so the keyboard is at or slightly below the level of your elbow. This position lets your shoulders relax while you type.
- Adjust the chair height, adjust the forward tilt of the seat, or use a footrest to distribute your weight evenly on the chair and relieve pressure on the back of your thighs.
- Adjust the back of the chair so it supports the lower curve of your spine. You can use a pillow or cushion to provide extra back support.

Setting up your computer and computer accessories

- Set up the monitor so the top is no higher than eye level, the monitor controls are within reach, and the screen is tilted to be perpendicular to your line of sight.
- Place your keyboard and mouse at a comfortable distance. You should be able to reach them without stretching.
- Set paper holders at the same height and distance as the monitor.

Sitting at your computer

- Avoid bending, arching, or angling your wrists. Make sure that they are in a relaxed position when you type.
- Do not slouch forward or lean far back. Sit with your back straight so your knees, hips, and elbows form right angles when you work.
- Take breaks to stand and stretch your legs.
- Avoid twisting your torso or neck.

Avoiding discomfort and injury from repetitive strain

- Vary your activities to avoid excessive repetition.
- Take breaks to change your position, stretch your muscles, and relieve your eyes.
- Find ways to break up the work day, and schedule a variety of tasks.

Protecting from power source problems

During a power surge, the voltage level of electricity coming into your computer can increase to far above normal levels and cause data loss or system damage. Protect your computer and peripheral devices by connecting them to a *surge protector*, which absorbs voltage surges and prevents them from reaching your computer.

Warning



High voltages can enter your computer through both the power cord and the modem connection. Protect your computer by using a surge protector. If you have a telephone modem, use a surge protector that has a modem jack. If you have a cable modem, use a surge protector that has an antenna/cable TV jack. During an electrical storm, unplug both the surge protector and the modem.

An *uninterruptible power supply* (UPS) supplies battery power to your computer during a power failure. Although you cannot run your computer for an extended period of time with a UPS, a UPS lets you run your computer long enough to save your work and shut down your computer normally.

Checking the voltage selection

A power supply is integrated into your computer to provide power to the system board, add-in cards, and peripheral devices. The voltage selection for your location is typically set at the factory. Use the power selection switch on the back of your computer to set the power supply to 115V or 230V. To verify that your system has the correct setting for your environment, check the voltage selection switch.

Caution



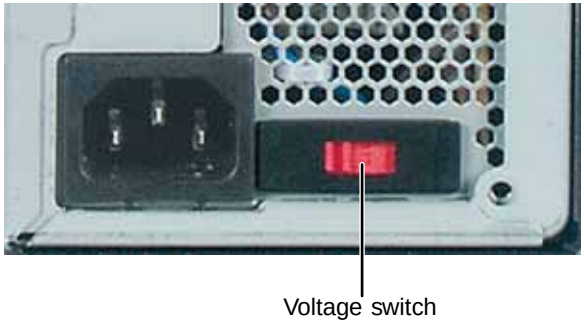
If you set the voltage selection switch incorrectly, your system will be damaged. Make sure this switch is set correctly for your location before turning on your computer.

In the United States, the utility power is supplied at a nominal 115 volts at 60 Hz. The power supply should always be set to this when your computer is operating in the United States. In other areas of the world, such as Europe, the utility power is supplied at 230 volts at 50 Hz. If your computer is operating in an environment such as this, the voltage switch should be moved to 230.

To set the voltage selection switch:

- Use a tool such as an opened paper clip to slide the voltage selection switch to the correct voltage position.

Micro Tower



Mid Tower



Starting your computer

To start your computer:

1. Connect the cables to your computer. See the setup poster for setup instructions.
2. Turn on your computer.
3. If you are starting your computer for the first time, follow the on-screen instructions to set up your computer.

Important



Your computer has a built-in variable speed fan. In addition, your computer uses a powerful processor which produces heat. Both the system fan and processor can run at different speeds at times to ensure proper system cooling. You may notice an increase in the fan noise when the fan is running at high speed and a decrease in the fan noise when it switches to normal speed.

4. Turn on any peripheral devices, such as printers or scanners, and see the documentation that came with the device for setup instructions.

Waking up your computer

When you have not used your computer for several minutes or have not turned off your computer, it may enter a power-saving mode called *Standby*. While in Standby, the power indicator flashes.

If your computer is in Standby mode, move the mouse or press the power button to "wake" it up.

Tips & Tricks



For more information about changing the power button mode, see "Changing Power-Saving Settings" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

Turning off your computer

Warning



When you turn off your computer, certain components in the power supply and system board remain energized. In order to remove all electrical power from your computer, unplug the power cord and modem cable from the wall outlets. We recommend disconnecting the power cord and modem cable when your computer will not be used for long periods.

For more information about changing the power button mode, see "Changing Power-Saving Settings" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

To turn off your computer:

1. Click **Start**, then click **Turn Off Computer**. The *Turn Off Computer* dialog box opens.
2. Click **Turn Off**. Windows shuts down and turns off your computer.

Important



If for some reason you cannot use the Turn Off Computer option in Windows to turn off your computer, press and hold the power button for about five seconds, then release it.



Restarting (rebooting) your computer

If your computer does not respond to keyboard or mouse input, you may have to close programs that are not responding. If closing unresponsive programs does not restore your computer to normal operation, you may have to restart (reboot) your computer.

To close unresponsive programs and restart your computer:

1. Press **CTRL+ALT+DEL**. The *Task Manager* window opens.
2. Click the **Applications** tab, then click the program that is not responding.
3. Click **End Task**.
4. Click **X** in the top-right corner of the *Windows Task Manager* dialog box.
5. If your computer does not respond, turn it off, wait ten seconds, then turn it on again.

Important

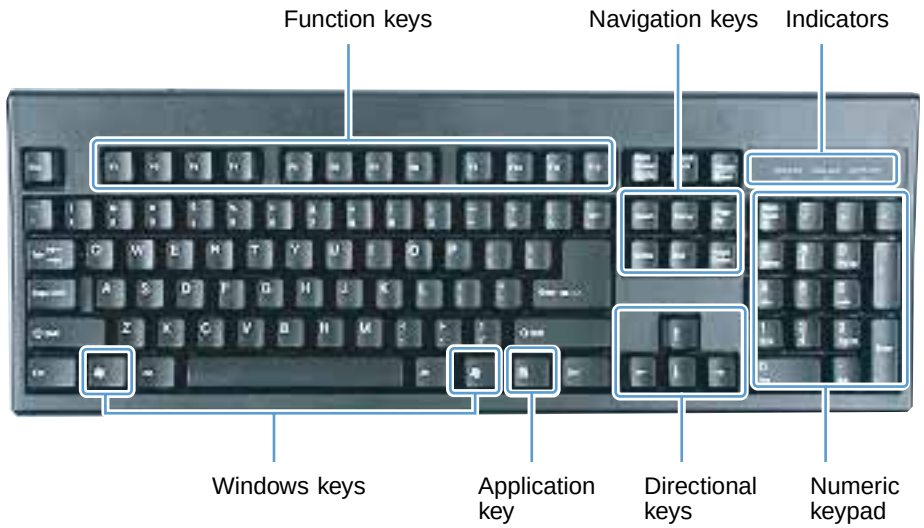
If your computer does not turn off, press and hold the power button for about five seconds, then release it.

As a part of the regular startup process, a program to check the disk status runs automatically. When the checks are finished, Windows starts.

Using the keyboard

Standard keyboard

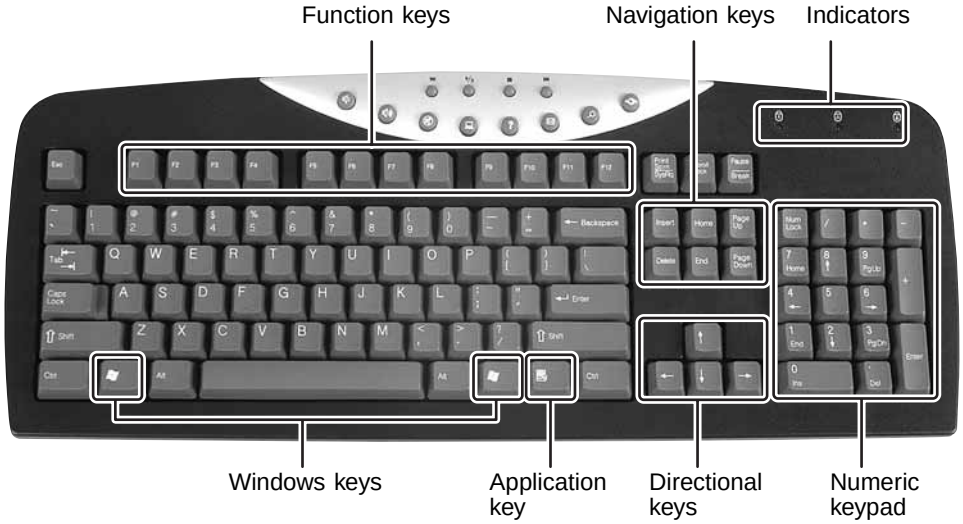
This keyboard is the basic model of keyboard available with your computer.



Press these keys...	To...
Function keys	Start program actions. Each program uses different function keys for different purposes. See the program documentation to find out more about the function key actions.
Navigation keys	Press these keys to move the cursor to the beginning of a line, to the end of a line, up the page, down the page, to the beginning of a document, or to the end of a document.
Indicators	Show if your NUM LOCK, CAPS LOCK, or SCROLL LOCK keys are activated. Press the corresponding key to activate the function.
Windows keys	Press one of these keys to open the Windows **Start** menu. These keys can also be used in combination with other keys to open utilities like **F** (Search utility), **R** (Run utility), and **E** (Explorer utility).
Application key	Access shortcut menus and help assistants in Windows.
Directional keys	Move the cursor up, down, right, or left.
Numeric keypad	Use these keys to type numbers when the numeric keypad (NUM LOCK) is turned on.

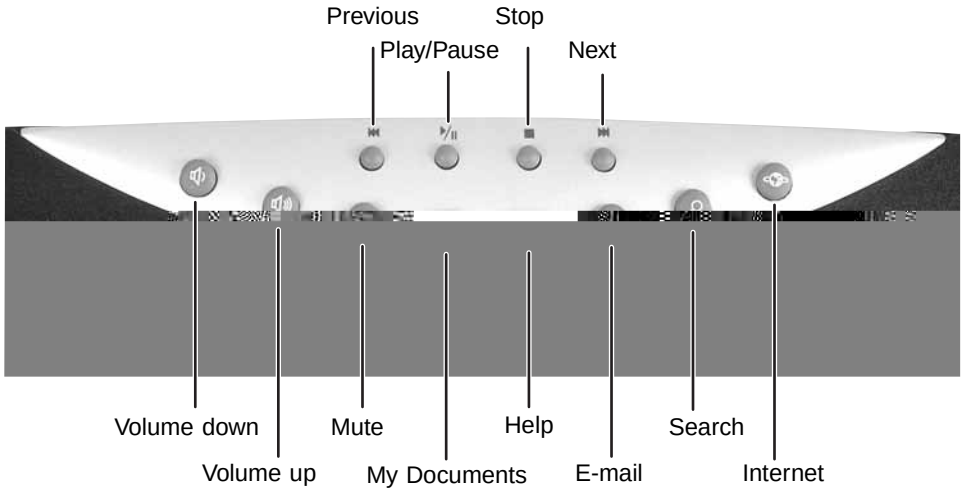
Multifunction keyboard

This keyboard is the full-featured model available with your computer.



Press these keys...	To...
Function keys	Start program actions. Each program uses different function keys for different purposes. See the program's help to learn more about function key actions.
Navigation keys	Press these keys to move the cursor to the beginning of a line, to the end of a line, up the page, down the page, to the beginning of a document, or to the end of a document.
Indicators	Show if your NUM LOCK, CAPS LOCK, or SCROLL LOCK keys are activated. Press the corresponding key to activate the function.
Windows keys	Press this key to open the Windows **Start** menu. This key can also be used in combination with other keys to open utilities like **F** (Search utility), **R** (Run utility), and **E** (Explorer utility).
Application key	Access shortcut menus and help assistants in Windows.
Directional keys	Move the cursor up, down, right, or left.
Numeric keypad	Use these keys to type numbers when the numeric keypad (NUM LOCK) is turned on.

Special-function buttons



Special-function buttons	Icons	Press to…
Previous	⏮	Return to the previous CD track or DVD chapter.
Play/Pause	⏯	Start or pause the play of the CD or DVD.
Stop	■	Stop the play of CD or DVD.
Next	⏭	Move to the next CD track or DVD chapter.
Volume down	🔉	Decrease the volume.
Volume up	🔊	Increase the volume.
Mute	🔇	Turn off all sound.
My Documents	💻	Opens the My Documents folder. You can customize this button to open another program.
Help	?	Open online help. You can customize this button to open another program.
E-mail	✉	Open your e-mail program. You can customize this button to open another program.
Search	🔍	Open online search. You can customize this button to open another program.
Internet	🌐	Open your Web browser. You can customize this button to open another program.

Adjusting the volume

You can use the volume controls to adjust the overall volume and the volume of specific sound devices in your computer.

To adjust the overall volume level using hardware controls:

- If you are using external speakers, turn the knob on the front of the speakers.

 -OR-

 Use the mute and volume control buttons on the keyboard.

Tips & Tricks



For instructions on how to adjust the volume in Windows, see "Adjusting the Volume" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

Connecting the modem

Your computer may have an optional 56K modem that you can use to connect to a standard telephone line.

Warning



To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

To connect the modem:

1. Insert one end of the modem cable into the modem jack on the back of your computer.
2. Insert the other end of the modem cable into a telephone wall jack. The modem will not work with digital or PBX telephone lines.
3. Start your computer, then start your communications program.

Connecting to a wired Ethernet network

Your computer has a network jack that you can use to connect to a 10/100 wired Ethernet network.

Important



Your computer is equipped with a built-in Ethernet port.

For information about setting up a wired or wireless Ethernet network, see “Networking Your Computer” on page 85.

To connect to a wired Ethernet network:

1. Insert one end of the network cable into the network jack on the back of your computer.
2. Insert the other end of the network cable into a network jack.

Tips & Tricks



You can use your computer’s Ethernet jack for more than just networking. Many broadband Internet connections, such as cable modems and DSL modems, connect to your computer’s Ethernet jack. For more information, see “Using the Internet” in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

Installing a printer, scanner, or other peripheral device

Important



Before you install a printer, scanner, or other peripheral device, see the device documentation and installation instructions.

Your computer has one or more of the following ports: IEEE 1394 (also known as Firewire® or i.Link®), Universal Serial Bus (USB), serial, and parallel. You use these ports to connect peripheral devices such as printers, scanners, and digital cameras to your computer. For more information about port locations, "Checking Out Your Gateway Computer" on page 5.

IEEE 1394 and USB ports support *plug-and-play* and *hot-swapping*, which means that your computer will usually recognize such a device whenever you plug it into the appropriate port. When you use an IEEE 1394 or USB device for the first time, your computer will prompt you to install any software the device needs. After doing this, you can disconnect and reconnect the device at any time.

Parallel and serial port devices are not plug-and-play. See the device documentation for detailed information and installation instructions.

Help and Support



For more information about installing peripheral devices, click **Start**, then click **Help and Support**.

Type the keyword **installing devices** in the **Search** box Search , then click the arrow.

Chapter 4

Using Drives and Ports

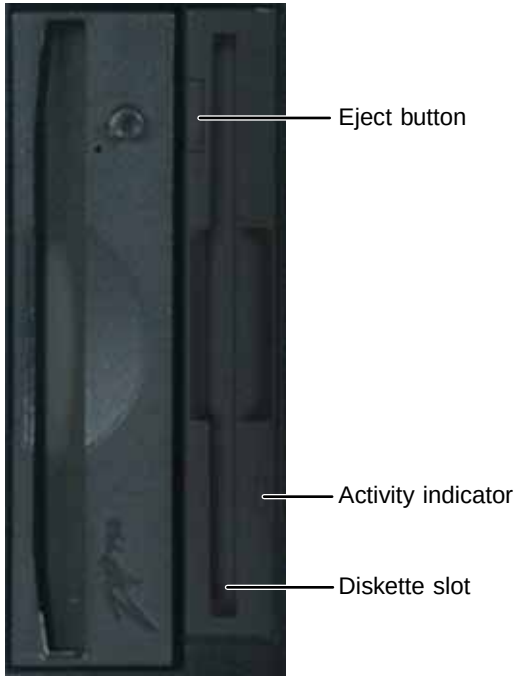


- Using the diskette drive
- Using the Zip drive
- Using the memory card reader
- Using CD or DVD drives

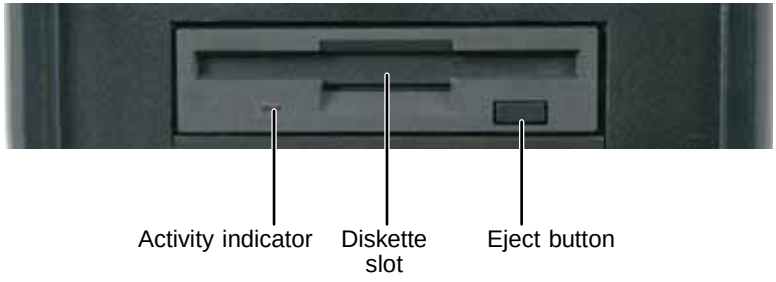
Using the diskette drive

The optional diskette drive uses 3.5-inch diskettes (sometimes called floppy disks). Diskettes are useful for storing files or transferring files to another computer.

Micro Tower



Mid Tower

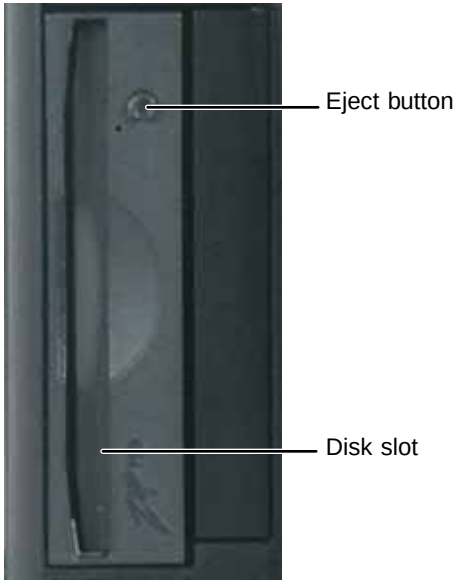


To use a diskette:

1. Insert the diskette into the diskette drive with the label facing up (or to the left, if using your Micro Tower case vertically).
2. To access a file on the diskette, click **Start**, then click **My Computer**. Double-click the drive letter (for example, the A: drive), then double-click the file name.
3. To remove the diskette, make sure that the drive activity light is off, then press the diskette eject button.

Using the Zip drive

Iomega Zip drives, like diskette drives, use disks to store data. Zip disks can store 100 MB, 250 MB, or 750 MB of data. You can use a Zip drive to back up files you do not use so you can remove them from your hard drive. Zip drives also provide an easy way to transfer files between computers (if both computers have internal Zip drives or if you have one external, portable Zip drive).



To use a Zip disk:

1. Insert the Zip disk into the Zip drive with the label facing up (or to the left, if using your Micro Tower case vertically).
2. To access a file on the Zip disk, click **Start**, then click **My Computer**. Double-click the drive letter (for example, the B: drive), then double-click the file name.
3. To remove the Zip disk, press the eject button.

Using the memory card reader

You can use the optional memory card reader to transfer pictures from a digital camera to your computer. You can also use the memory card reader to transfer data between your computer and a device that uses memory cards, such as a PDA, MP3 player, or cellular phone. Each slot is assigned a different drive letter (for example, the E: and F: drives) so data can be transferred from one media type to another.

See the additional documentation that came with your computer for specific information on supported memory card types.

Memory card types

The memory card reader supports some or all of the following card types:

- Secure Digital™
- MultiMediaCard™
- SM (SmartMedia™)
- Memory Stick®
- Memory Stick PRO™
- CompactFlash®
- IBM Microdrive™

Inserting a memory card

Caution



To avoid memory card damage or errors while using a memory card, insert only one memory card in a slot at a time.

To use a memory card:

1. Insert the memory card into the appropriate memory card slot.
2. To access a file on the memory card, click **Start**, then click **My Computer**. Double-click the drive letter (for example, the E: drive), then double-click the file name.

To remove a memory card:

- Wait for the media reader access indicator to stop blinking, then pull the card out of the slot.

Caution



Do not remove the card or turn off the computer while the card reader access indicator is blinking. You could lose data. Also, remove the card from the reader before you turn off the computer.

Important



Do not use the remove hardware icon in the taskbar to remove the memory card. If you use the remove hardware icon, your computer will not recognize your memory card reader until you restart the computer.



Using the CD or DVD drive

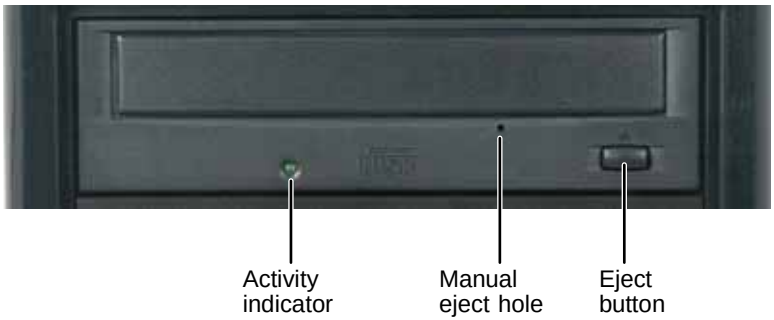
You can use your computer to enjoy a wide variety of multimedia features.

Identifying drive types

Your Gateway computer may contain one of the following drive types. Look on the front of the drive for one or more of the following logos:

If your drive has this logo...	This is your drive type...	Use your drive for...
	**CD drive**	Installing programs, playing audio CDs, and accessing data.
	**CD-RW drive**	Installing programs, playing audio CDs, accessing data, and creating CDs.
	**DVD/CD-RW drive**	Installing programs, playing audio CDs, accessing data, creating CDs, and playing DVDs.
	**DVD drive**	Installing programs, playing audio CDs, playing DVDs, and accessing data.
	**DVD+RW**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to DVD+R or DVD+RW discs.
	**DVD R/RW drive**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to DVD+R, DVD+RW, DVD-R, and DVD-RW discs.

Inserting a CD or DVD



Important

Some music CDs have copy protection software. You may not be able to play these CDs on your computer.

To insert a CD or DVD:

1. Press the eject button on the CD or DVD drive.
2. Place the disc in the tray with the label facing up (or to the left, if using your Micro Tower case vertically).

Important

When you place a single-sided disc in the tray, make sure that the label side is facing up (or to the left, if using your Micro Tower case vertically). If the disc has two playable sides, place the disc so the name of the side you want to play is facing up (or left).

3. Press the eject button to close the tray.

Playing a CD

Use the music program or Windows Media Player on your computer to:

- Play music CDs
- Create MP3 music files from your music CDs
- Edit music track information
- Use your music files to build a music library
- Listen to Internet Radio

Tips & Tricks



For more information about playing CDs, see “Playing CDs” in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

Playing a DVD

A Digital Versatile Disc (DVD) is similar to a standard CD but has greater data capacity. Because of this increased capacity, full-length movies, several albums of music, or several gigabytes of data can fit on a single disc. You can play DVDs with the DVD program or Windows Media Player on your computer.

Tips & Tricks



For more information about playing DVDs, see “Playing DVDs” in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

Creating CDs and DVDs

You can use the CD and DVD burning program on your computer to copy tracks from a music CD to your hard drive, copy or create data CDs and DVDs, create music CDs, create video DVDs, and more.

Tips & Tricks



For more information about creating CDs and DVDs, see “Creating CDs and DVDs” in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

Chapter 5

Maintaining Your Computer



- Caring for your computer
- Updating Windows
- Protecting your computer from viruses
- Cleaning your computer
- Restoring your system
- Opening the computer case
- Adding memory and replacing the battery

Caring for your computer

To extend the life of your computer:

- When transporting your computer, we recommend that you put it in the original packaging materials.
- Keep diskettes and your computer away from magnetic fields. Magnetic fields can erase data on both diskettes and hard drives.
- Avoid subjecting your computer to extreme temperature changes.
- Keep all liquids away from your computer. When spilled onto computer components, almost any liquid can result in extremely expensive repairs that are not covered under your warranty.
- Avoid dusty or dirty work environments. Dust and dirt can clog the internal mechanisms.
- Do not block the ventilation fan.
- When storing your computer for an extended period of time, unplug AC power.

Updating Windows

Windows Update is the online extension of Windows that helps you to keep your computer up-to-date. Use Windows Update to choose updates for your computer's operating system, software, and hardware. New content is added to the site regularly, so you can always get the most recent updates and fixes to protect your computer and keep it running smoothly. Windows Update scans your computer and provides you with a tailored selection of updates that apply only to the software and hardware on your computer.

To run Windows Update:

1. Connect to the Internet.
2. Click **Start**, **All Programs**, then click **Windows Update**.
3. Click **Scan for Available Updates**.

Help and Support

For more information about Windows Update, click **Start**, then click **Help and Support**.

Type the keyword **Windows Update** in the HelpSpot **Search** box Search , then click the arrow.

Protecting your computer from viruses

A *virus* is a program that attaches itself to a file on a computer, then spreads from one computer to another. Viruses can damage data or cause your computer to malfunction. Some viruses go undetected for a period of time because they are activated on a certain date.

Protect your computer from a virus by:

- Registering and subscribing to Norton AntiVirus. You received a free, limited-time subscription to the Norton AntiVirus service when you purchased your computer.
- Using the Norton® AntiVirus program to check files and programs that are on diskettes, attached to e-mail messages, or downloaded from the Internet.
- Checking all programs for viruses before installing them.
- Disabling macros on suspicious Microsoft Word and Excel files. These programs will warn you if a document that you are opening contains a macro that might have a virus.
- Periodically updating the Norton AntiVirus program to protect against the latest viruses.

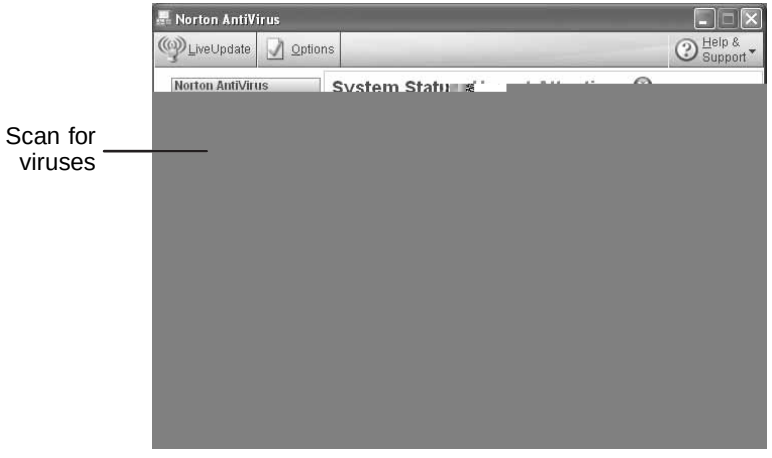
Help and Support

For more information about protecting your computer against viruses, click **Start**, then click **Help and Support**.

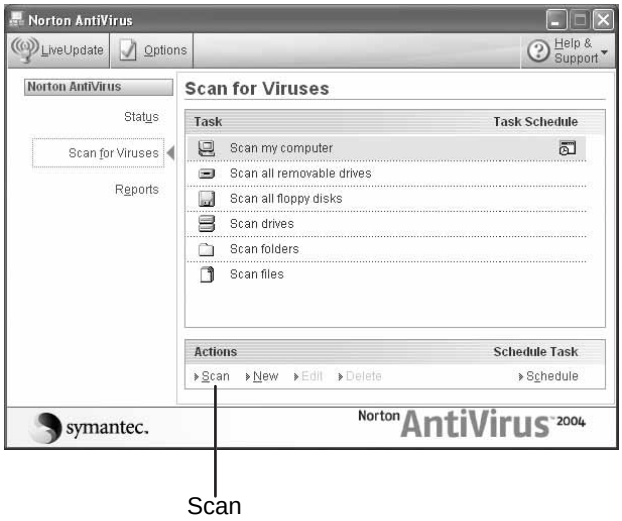
Type the keyword **viruses** in the **Search** box Search , then click the arrow.

To scan for viruses:

1. Click **Start**, **All Programs**, **Norton AntiVirus**, then click **Norton AntiVirus 2004**. Norton AntiVirus opens.



2 Click **Scan for Viruses**.



3 Click the type of scan you want to make in the Scan for Viruses area, then under Actions, click **Scan**.

To remove a virus:

1 If Norton AntiVirus finds a virus, follow all on-screen instructions to remove the virus.

2 Turn off your computer and leave it off for at least 30 seconds.

3 Turn on your computer and rescan for the virus.

To update Norton AntiVirus:

Tips & Tricks



You received a free, limited-time subscription to the Norton AntiVirus service when you purchased your computer. To update Norton AntiVirus after the free subscription period, you must extend your subscription.

1. Make sure that you are connected to the Internet.
2. Click **Start**, **All Programs**, **Norton AntiVirus**, then click **LiveUpdate - Norton AntiVirus**. The LiveUpdate wizard opens.
3. Follow the on-screen instructions to update your Norton AntiVirus program with the latest virus protection files.
4. When the program has finished, click **Finish**.



Cleaning your computer

Keeping your computer clean and the vents free from dust helps keep your computer performing at its best. You may want to gather these items and put together a computer cleaning kit:

- A soft, lint-free cloth
- An aerosol can of air that has a narrow, straw-like extension
- Cotton swabs
- A CD or DVD drive cleaning kit

Cleaning the exterior

Warning



When you shut down your computer, the power turns off, but some electrical current still flows through your computer. To avoid possible injury from electrical shock, unplug the power cord and modem cable from the wall outlets.

Always turn off your computer and other peripherals before cleaning any components.

Use a damp, lint-free cloth to clean your computer and other parts of your system. Do not use abrasive or solvent cleaners because they can damage the finish on components.

Your computer is cooled by air circulated through the vents on the case, so keep the vents free of dust. With your computer turned off and unplugged, brush the dust away from the vents with a damp cloth. Be careful not to drip any water into the vents. Do not attempt to clean dust from the inside of your computer.

Cleaning the keyboard

You should clean the keyboard occasionally by using an aerosol can of air with a narrow, straw-like extension to remove dust and lint trapped under the keys.

If you spill liquid on the keyboard, turn off your computer and turn the keyboard upside down. Let the liquid drain, then let the keyboard dry before trying to use it again. If the keyboard does not work after it dries, you may need to replace it.

Cleaning the monitor

To clean an LCD or flat panel display monitor, use a soft cloth and water to clean the LCD screen. Squirt a little water on the cloth (never directly on the screen), and wipe the screen with the cloth.

Caution



A flat panel display or LCD screen is made of specially coated glass and can be scratched or damaged by abrasive or ammonia-based glass cleaners.

To clean a CRT monitor, use a soft cloth and glass cleaner to clean the monitor screen. Squirt a little cleaner on the cloth (never directly on the screen), and wipe the screen with the cloth.

Cleaning the mouse

If the mouse pointer begins moving erratically across the computer screen or becomes difficult to control precisely, cleaning the mouse will likely improve its accuracy.



To clean your optical mouse:

- Wipe the bottom of the mouse with a damp lint-free cloth

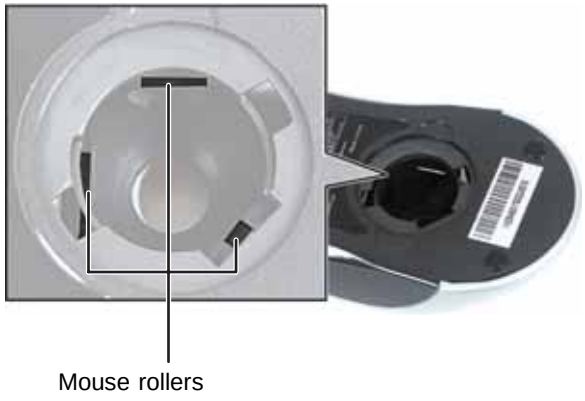


To clean your trackball mouse:

1. Turn the mouse upside down.
2. Rotate the retaining ring on the bottom of the mouse counter-clockwise, then remove the retaining ring and mouse ball.



3. Remove any dust, lint, or dirt from the mouse ball with a soft cloth.
4. Clean the mouse rollers with a cotton swab dipped in isopropyl alcohol.



5. Replace the mouse ball and lock the retaining ring into place.

Cleaning CDs or DVDs

Wipe from the center to the edge, not around in a circle, using a product made especially for the purpose.





Restoring your system

All programs that were preinstalled on your computer are available on the backup Restore CDs or DVDs that you created, the Restore CDs or DVD that shipped with your computer, or they are available on the hard drive. If you need to restore your computer to the original configuration, you can restore from the backup Restore CDs or DVDs or you can restore from the backup files located on the hard drive.

The instructions to use the Restore CDs or DVDs or hard drive backup files are included with the blank CDs or DVDs that came with your computer.

Preventing static electricity discharge

The components inside your computer are extremely sensitive to static electricity, also known as *electrostatic discharge* (ESD).

Warning



To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer and unplug the power cord and modem and network cables before opening the case.

Caution



ESD can permanently damage electrostatic discharge-sensitive components in your computer. Prevent ESD damage by following ESD guidelines every time you open the computer case.

Before opening the computer case, follow these guidelines:

- Turn off your computer.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your computer.

Warning



To prevent risk of electric shock, do not insert any object into the vent holes of the power supply.

- Touch a bare metal surface on the back of the computer.
- Unplug the power cord and the modem and network cables.

Before working with computer components, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold expansion cards by their edges or their metal mounting brackets. Avoid touching the edge connectors and components on the cards. Never slide expansion cards or components over any surface.

Maintaining the Micro Tower case

Opening the case

Warning

To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer, then unplug the power cord and modem cable before opening the case.

To open the case:

1. Follow the instructions in "Preventing static electricity discharge" on page 53.
2. Shut down your computer, then disconnect the power cord and modem, network, and all peripheral device cables.
3. Press the power button to drain any residual power from your computer.
4. If your case cover has a case cover shipping thumbscrew installed on the back of the case, remove the screw. For information about the location of the screw, see "Back" on page 8.
5. For more stability, place your computer on its side with the rubber feet resting on your workspace.
6. Pull up on the cover release handle.



7 Lift the side panel up.



8 Lift the side panel away from the case.

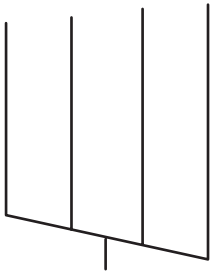


Closing the case

To close the case:

1. Make sure that all of the internal cables are arranged inside the case so they will not be pinched when you close the case.
2. Align the door tabs into the case notches.





Case notches

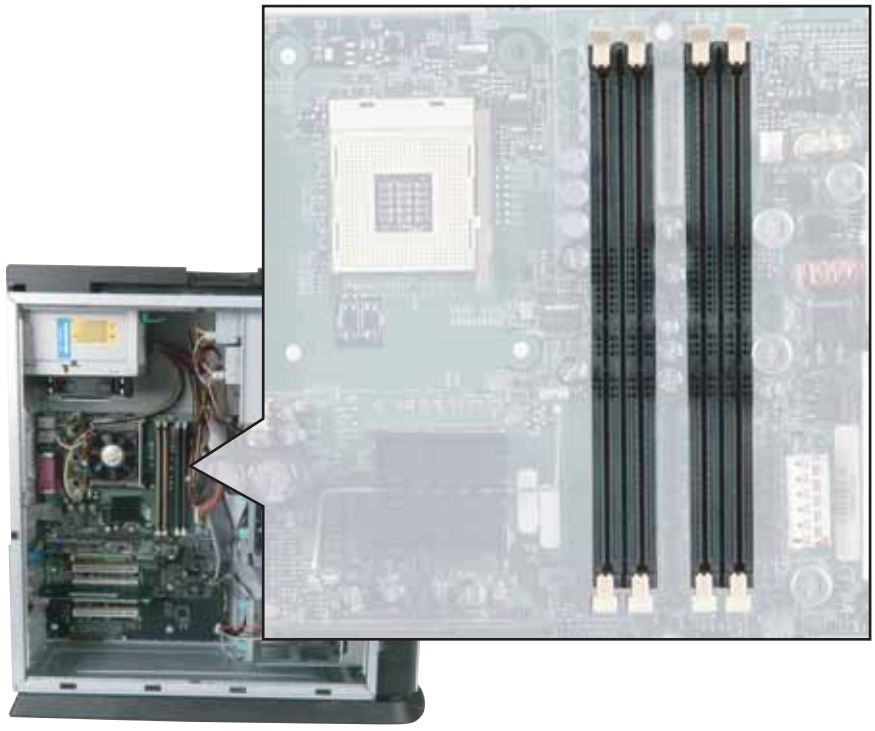
3. Swing the side panel toward the case until the release handle locks.
4. Reconnect the cables and power cord.

Installing memory

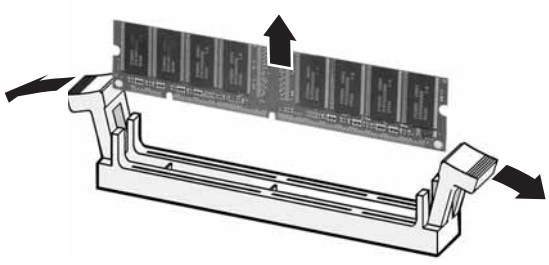
When you upgrade the computer memory, make sure that you install the correct type of memory module for your computer. Your computer uses DIMM memory.

To install or replace DIMM memory:

1. Open the case by following the instructions in "Opening the case" on page 54.
2. Find the memory module banks on your system board.



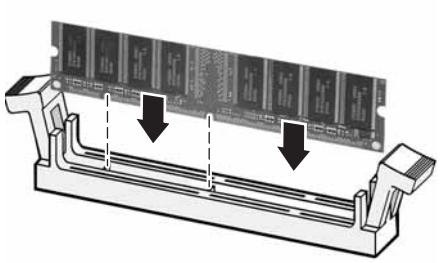
3 If you are removing a DIMM from the memory module bank, gently pull the plastic tabs away from the sides of the memory module and remove it.



- OR -

If you are adding a DIMM to an empty memory module bank, gently pull the plastic tabs away from the sides of the memory module bank.

4 Align the notches on the new DIMM with the notches on the memory module bank and press the module firmly into the bank. The tabs on the sides of the memory module should secure the memory module automatically. When the module is secure, you hear a click.



5 Close the case by following the instructions in "Closing the case" on page 56.

6 Reconnect the cables and the power cord.

7 Turn on your computer. Windows starts and the Windows desktop appears.

8 Click **Start**, **Control Panel**, then click **Performance and Maintenance** (if in Category view). Click/Double-click **System**. The amount of memory in your computer is shown at the bottom of the *System Properties* dialog box in the General tab.

Replacing the system battery

If the computer clock does not keep time or the settings in the BIOS Setup utility are not saved when you turn off your computer, replace the system battery. Use a battery of the same size and voltage as the original battery that was in your computer.

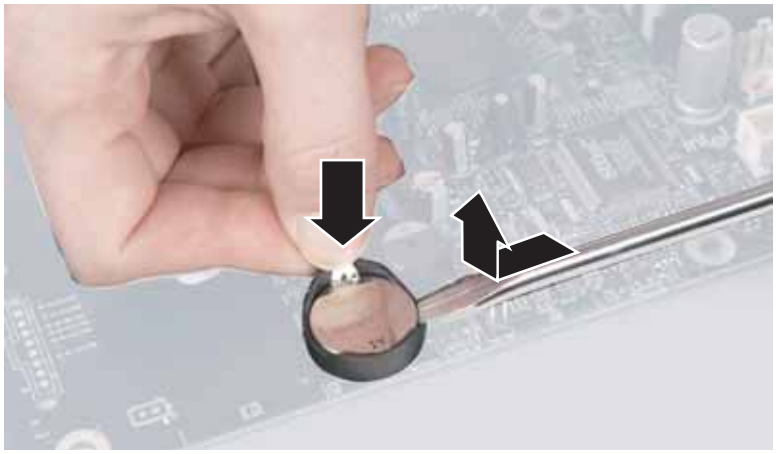
Warning

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries following the manufacturer's instructions.

To replace the battery:

1. Shut down your computer.
2. Open the case by following the instructions in "Opening the case" on page 54.
3. Locate the old battery on the system board and note its orientation. You will need to install the new battery the same way.
4. While pushing down on the battery release tab, place the edge of a small flat-head screwdriver under the battery and lift the battery up until it pops out of the socket.



5. Make sure that the positive (+) side of the new battery is facing up, then press the battery into the socket until it snaps into place.
6. Close the case by following the instructions in "Closing the case" on page 56.
7. Reconnect all external cables and the power cord.
8. Turn on your computer.

Maintaining the Mid Tower case

Opening the case

Warning

To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer, then unplug the power cord and modem cable before opening the case.

To open the case:

1. Follow the instructions in "Preventing static electricity discharge" on page 53.
2. Shut down your computer, then disconnect the power cord and modem, network, and all peripheral device cables.
3. Press the power button to drain any residual power from your computer.
4. Remove the two thumbscrews on the back of the case.
5. Pull the side panel away from the computer.



Closing the case

To close the case:

1. Make sure that all of the internal cables are arranged inside the case so they will not be pinched when you close the case.
2. Align the tabs on the front of the panel into the case notches.
3. Swing the side panel toward the case until it is flush with the side of the case.
4. Replace the thumbscrews.
5. Reconnect the cables and power cord.

Removing the front bezel

Some upgrading procedures may require you to remove the front bezel.

To remove the front bezel:

1. Open the case by following the instructions in "Opening the case" on page 60.
2. In the lower front area of the case, press the two bezel retention tabs outward until the lower part of the bezel detaches from the case.



3 Position the computer where you can grasp the front bottom edge of the bezel, then pull the bezel out and away from the case.





To replace the front bezel:

1 Align the latch pins with the computer latch holes.



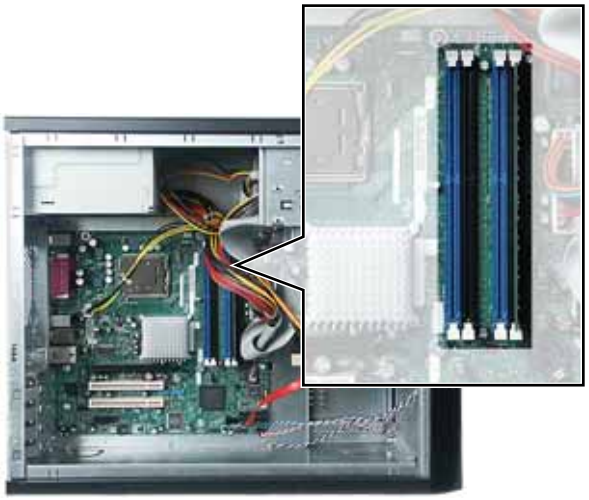
2 Press the bezel firmly into place.

Installing memory

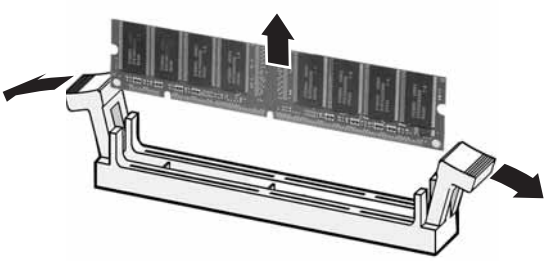
When you upgrade the computer memory, make sure that you install the correct type of memory module for your computer. Your computer uses DIMM memory.

To install or replace DIMM memory:

1. Open the case by following the instructions in "Opening the case" on page 60.
2. Find the memory module banks on your system board.



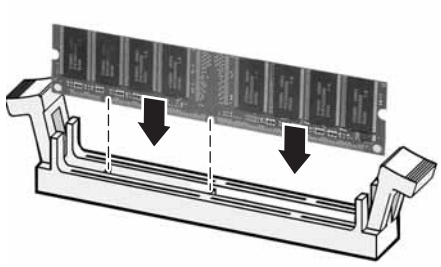
3. If you are removing a DIMM from the memory module bank, gently pull the plastic tabs away from the sides of the memory module and remove it.



- OR -

If you are adding a DIMM to an empty memory module bank, gently pull the plastic tabs away from the sides of the memory module bank.

4 Align the notches on the new DIMM with the notches on the memory module bank and press the module firmly into the bank. The tabs on the sides of the memory module should secure the memory module automatically. When the module is secure, you hear a click.



5 Close the case by following the instructions in "Closing the case" on page 61.

6 Reconnect the cables and the power cord.

7 Turn on your computer. Windows starts and the Windows desktop appears.

8 Click **Start**, **Control Panel**, then click **Performance and Maintenance** (if in Category view). Click/Double-click **System**. The amount of memory in your computer is shown at the bottom of the *System Properties* dialog box in the General tab.

Replacing the system battery

If the computer clock does not keep time or the settings in the BIOS Setup utility are not saved when you turn off your computer, replace the system battery. Use a battery of the same size and voltage as the original battery that was in your computer.

Warning

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries following the manufacturer's instructions.

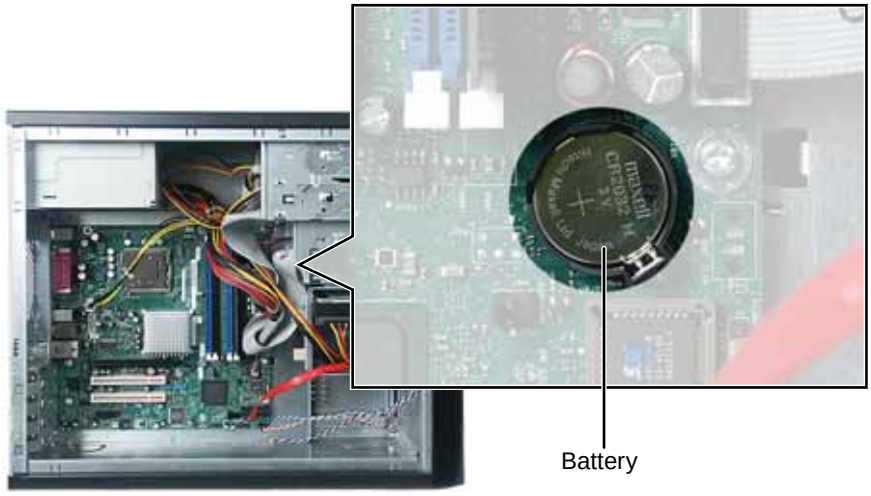
To replace the battery:

1 Shut down your computer.

2 Open the case by following the instructions in "Opening the case" on page 60.

3 Locate the old battery on the system board and note its orientation. You will need to install the new battery the same way.

4 While pushing down on the battery release tab, place the edge of a small flat-head screwdriver under the battery and lift the battery up until it pops out of the socket.



5 Make sure that the positive (+) side of the new battery is facing up, then press the battery into the socket until it snaps into place.

6 Close the case by following the instructions in "Closing the case" on page 61.

7 Reconnect all external cables and the power cord.

8 Turn on your computer.

Chapter 6

Troubleshooting



- Troubleshooting typical hardware and software problems

Safety guidelines

While troubleshooting your computer, follow these safety guidelines:

- Never remove your computer case cover while your computer is turned on and while the modem cable and the power cord are connected.
- Make sure that you are correctly grounded before accessing internal components. For more information about preventing damage from static electricity, see "Preventing static electricity discharge" on page 53.

Warning



To avoid bodily injury, do not attempt to troubleshoot your computer problem if:

- Power cords or plugs are damaged
- Liquid has been spilled into your computer
- Your computer was dropped
- The case was damaged

Instead, unplug your computer and contact a qualified computer technician.

First steps

If you have problems with your computer, try these things first:

- Make sure that the AC power adapter is connected to your computer and an AC outlet and that the AC outlet is supplying power.
- If you use a power strip or surge protector, make sure that it is turned on.
- If a peripheral device (such as a keyboard or mouse) does not work, make sure that all connections are secure.
- Make sure that your hard drive is not full.
- If an error message appears on the screen, write down the exact message. The message may help Gateway Customer Care in diagnosing and fixing the problem.
- If you added or removed peripheral devices, review the installation procedures you performed and make sure that you followed each instruction.
- If an error occurs in a program, see the program's printed documentation or the online help.

Troubleshooting

Add-in cards

The computer does not recognize an add-in card

- Shut down and restart your computer.
- Make sure that you have installed the required software. For more information, see the documentation that came with your add-in card.

Audio

See "Sound" on page 83.

Battery

See "Power" on page 81.

CD or DVD drives

The computer does not recognize a disc or the CD or DVD drive

- Make sure that the disc label is facing up, then try again.
- Try a different disc. Occasionally discs are flawed or become scratched and cannot be read by the CD or DVD drive.
- If you are trying to play a DVD, make sure that you have a DVD drive. To identify your drive type, see "Identifying drive types" on page 41.
- Your computer may be experiencing some temporary memory problems. Shut down and restart your computer.
- Some music CDs have copy protection software. You may not be able to play these CDs on your computer.
- Clean the disc. For more information, see "Cleaning CDs or DVDs" on page 52.
- Make sure that the drive is configured correctly by following the instructions in the drive documentation.
- Reinstall the device driver.

Audio CD does not produce sound

- Make sure that the disc label is facing up, then try again.
- Some music CDs have copy protection software. You may not be able to play these CDs on your computer.
- Make sure that the volume controls are turned up. For more information, see "Adjusting the volume" on page 32.
- Make sure that the mute controls are turned off. For more information, see "Adjusting the volume" on page 32.
- Make sure that the speaker cables are connected correctly and securely.
- Shut down and restart your computer.
- Clean the disc. For more information, see "Cleaning CDs or DVDs" on page 52.
- Reinstall the audio device drivers.

A DVD movie will not play

- Make sure that you have a DVD drive. To identify your drive type, see "Identifying drive types" on page 41.
- Make sure that the disc label is facing up, then try again.
- Try a different disc. Occasionally discs are flawed or become scratched and cannot be read by the DVD drive.
- Shut down and restart your computer.
- Clean the disc. For more information, see "Cleaning CDs or DVDs" on page 52.
- Reinstall the device driver.
- Make sure that the DVD program has been installed on your computer.
- DVDs and DVD drives contain *regional codes* that help control DVD title exports and help reduce illegal disc distribution. To be able to play a DVD, the disc's regional code and your DVD drive's regional code must match.

 The regional code on your DVD drive is determined by your computer's delivery address. The regional code for the United States and Canada is 1. The regional code for Mexico is 4. Your DVD drive's regional code must match the regional code for the disc. The regional code for the disc is on the disc, disc documentation, or disc packaging.

 If the DVD movie does not play, the disc's regional code and your DVD drive's regional code may not match.

Computer

The computer will not start

- Make sure that the power cord is connected to an AC power source and your computer is turned on.

Diskette drive

The diskette drive is not recognized

- Shut down and restart your computer.

You cannot save a file to diskette or you see the message "disk is full or write-protected"

- Make sure that the write-protection tab on the upper-right corner of the diskette is down (unprotected).
- Delete unnecessary files on the diskette and try again.
- Make sure that the diskette you are using is IBM-compatible.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.
- Run Error-checking on the diskette. For more information, see "Checking the hard drive for errors" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

 If errors are detected and corrected, try using the diskette again.

You see a "Access Denied" or "Write protect" error message

- Move the write-protection tab in the upper-right corner of the diskette down (unprotected).
- The diskette may be full. Delete unnecessary files on the diskette and try again.
- Make sure that the diskette you are using is IBM-compatible.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.

You see a "Disk is full" error message

- Delete unnecessary files on the diskette.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.

- Run Error checking on the diskette. For more information, see "Checking the hard drive for errors" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

You see a "Non-system disk" or "Disk error" error message

- Eject the diskette from the diskette drive, then press **ENTER**.
- Make sure that the diskette you are using is IBM-compatible.

The diskette drive LED is lit continuously

- Remove the diskette from the drive. If the light stays on, try restarting your computer.

DVD drives

See "CD or DVD drives" on page 69.

File management

A file was accidentally deleted

If a file was deleted while holding down the **SHIFT** key, the file cannot be restored.

To restore deleted files:

1. Double-click the **Recycle Bin** icon.
2. Right-click the file you want to restore, then click **Restore**. The file is restored to the place where it was originally deleted from.

 If the Recycle Bin was emptied before you try to restore a file, the file cannot be restored.

Help and Support

For more information about restoring deleted files, click **Start**, then click **Help and Support**.

Type the keyword **System Restore** in the **Search** box Search , then click the arrow.

Hard drive

You see an "Insufficient disk space" error message

- Delete unnecessary files from the hard drive using Disk Cleanup. For instructions on deleting unnecessary files, see "Using Disk Cleanup" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.
- Empty the Recycle Bin by right-clicking the **Recycle Bin** icon, then clicking **Empty Recycle Bin**.

Caution



All deleted files will be lost when you empty the Recycle Bin.

- Save your files to another drive. If the hard drive is full, copy any files not regularly used to backup media, then delete them from the hard drive.

Help and Support



For more information about file management, click **Start**, then click **Help and Support**.

Type the keyword **file management** in the **Search** box

Search , then click the arrow.

You see a "Data error" message

This may be the result of a defective area on the hard drive. To fix hard drive problems, run the Error checking program. For instructions on fixing hard drive problems, see "Checking the hard drive for errors" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

The hard drive cannot be accessed, or you see a "General failure reading drive C" error message

- If a diskette is in the diskette drive, eject it and restart your computer.
- Press **CTRL+ALT+DEL** to restart your computer.
- If your computer has been subjected to static electricity or physical shock, you may need to reinstall the operating system.

You see a "Non-system disk" or "disk error" error message

- Eject the diskette from the diskette drive, then press **ENTER**.

Internet

You cannot connect to the Internet

- If you are using a dial-up modem, make sure that the modem cable is plugged into the modem jack and not the Ethernet network jack. See "Back" on page 8 to make sure that the connections have been made correctly.

 - OR -

 If you are using a cable or DSL modem, make sure that the modem cable is plugged into the Ethernet network jack and not the modem jack. See "Back" on page 8 to make sure that the connections have been made correctly.

- Make sure that you do not have a problem with your modem. For more information, "Modem (dial-up)" on page 76.

- Make sure that your account with your Internet service provider (ISP) is set up correctly. Contact your ISP technical support for help.

Help and Support



For more information about troubleshooting Internet connections, click **Start**, then click **Help and Support**.

Type the keyword **troubleshooting connections** in the **Search** box Search , then click the arrow.

You see an "Unable to locate host" message and are unable to browse the Internet

This problem can occur when you have typed a URL (Web address) incorrectly, you have lost your Internet connection, or your ISP is having technical difficulties.

Double-check the URL or try a different URL. If the error message still appears, disconnect from the ISP connection and close your browser, then reconnect and open the browser. If you still get the error, your ISP may be having technical difficulties.

Connecting to a Web site takes too long

Many factors can affect Internet performance:

- The condition of the telephone lines in your residence or at your local telephone service
- The condition of the Internet computers to which you connect and the number of users accessing those computers
- The complexity of graphics and multimedia on Web pages
- Having multiple Web browsers open, performing multiple downloads, and having multiple programs open on your computer

People are sending you e-mail messages, but you have not received any mail

- Click the receive button in your e-mail program.

- Make sure that your account with your Internet service provider (ISP) is set up correctly. Contact your ISP for technical support.

Keyboard

The keyboard does not work

- Make sure that the keyboard cable is plugged in correctly. For more information, see the poster that came with your computer.
- Remove all extension cables and switch boxes.
- Clean the keyboard by using an aerosol can of air with a narrow, straw-like extension to remove dust and lint trapped under the keys.
- Try a keyboard that you know works to make sure that the keyboard port works.
- Reinstall the keyboard device driver.

A keyboard character keeps repeating or you see a "keyboard stuck" or "key failure" error message

- Make sure that nothing is resting on the keyboard.
- Make sure that a key is not stuck. Press each key to loosen a key that might be stuck, then restart your computer.

Liquid spilled in the keyboard

- If you spilled liquid in the keyboard, turn off your computer and unplug the keyboard. Clean the keyboard and turn it upside down to drain it. Let the keyboard dry before using it again. If the keyboard does not work after it dries, you may need to replace it.

Memory

You see a "Memory error" message

- Use a third-party diagnostic program to help determine if a memory module is failing.

You see a "Not enough memory" error message

- Close all programs, then restart your computer.

Help and Support



For more information about troubleshooting memory errors, click **Start**, then click **Help and Support**.

Type the keyword **memory error** in the **Search** box Search , then click the arrow.

Memory card reader

Drive letters for the memory card slots do not appear in the My Computer window

- Reboot your computer.

Modem (dial-up)

Your modem does not dial or does not connect

- Make sure that the modem cable is plugged into the modem jack and not the Ethernet network jack. See "Back" on page 8 to make sure that the connections have been made correctly.
- Make sure that your computer is connected to the telephone line and the telephone line has a dial tone.
- Make sure that the modem cable is less than 6 feet (1.8 meters) long.
- Remove any line splitters or surge protectors from your telephone line, then check for a dial tone by plugging a working telephone into the telephone wall jack.
- If you have additional telephone services such as call waiting, call messaging, or voice mail, make sure that all messages are cleared and call waiting is disabled before using the modem. Contact your telephone service to get the correct code to temporarily disable the service. Also make sure that the modem dialing properties are set correctly.



To check the dialing properties:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
2. Click/Double-click the **Phone and Modem Options** icon, then click the **Dialing Rules** tab.
3. Click the location from which you are dialing, then click **Edit**.
4. Make sure that all settings are correct.



Help and Support



For more information about dialing properties, click **Start**, then click **Help and Support**.

Type the keyword **dialing** in the **Search** box Search , then click the arrow.

- Disconnect any answering machine, fax machine, or printer that is on the same line as the modem. Do not connect these devices to the same telephone line as the modem.

- Make sure that you are not using a digital, rollover, or PBX line. These lines do not work with your modem.
- Check for line noise (scratchy, crackling, or popping sounds). Line noise is a common problem that can cause the modem to connect at a slower rate, abort downloads, or even disconnect. The faster the modem, the less line noise it can tolerate and still work correctly.

 Listen to the line using your telephone. Dial a single number (such as 1). When the dial tone stops, listen for line noise. Wiggle the modem cable to see if that makes a difference. Make sure that the connectors are free from corrosion and all screws in the wall or telephone wall jack are secure.

 You can also call your telephone service and have the telephone line checked for noise or low line levels.
- Try another telephone line (either a different telephone number in your house or a telephone line at a different location). If you can connect on this line, call your telephone service.
- Try connecting with the modem at a lower connection speed. If reducing the connect speed lets you connect, call your telephone service. The telephone line may be too noisy.

You cannot connect to the Internet

- The ISP may be having technical difficulties. Contact your ISP for technical support.
- See if the modem works with a different communications program. The problem may be with just one program.
- Review the troubleshooting information under "Internet" on page 74.

Your 56K modem does not connect at 56K

- Current FCC regulations restrict actual data transfer rates over public telephone lines to 53K. Other factors, such as line noise, telephone service provider equipment, or ISP limitations, may lower the speed even further.

 If your computer has a v.90 modem, the speed at which you can upload (send) data is limited to 33.6K. If your computer has a v.92 modem, the speed at which you can upload data is limited to 48K. Your ISP may not support 48K uploads.

Your fax communications program only sends and receives faxes at 14,400 bps when you have a 56K modem

Current fax technology only supports a maximum send and receive rate of 14,400 bps.

The modem is not recognized by your computer

- Make sure that the line connected to the modem is working and plugged into the appropriate port on your computer. See "Back" on page 8 to make sure that the connections have been made correctly.

- If the modem shares the telephone line with another device, make sure that the telephone line is not in use (for example, someone is on the telephone, or another modem is in use).
- Use the modem cable that came with your computer. Some telephone cables do not meet required cable standards and may cause problems with the modem connection.
- Shut down and restart your computer.
- Run Windows modem diagnostics.

To run modem diagnostics:

1. Close all open programs.
2. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
3. Click/Double-click the **Phone and Modem Options** icon, then click the **Modems** tab.
4. Click your modem, then click **Properties**. The *Modem Properties* dialog box opens.
5. Click the **Diagnostic** tab, then click **Query Modem**. If information about the modem appears, the modem passed diagnostics. If no modem information is available, a white screen appears with no data, or if you get an error such as *port already open* or *the modem has failed to respond*, the modem did not pass diagnostics.

Help and Support

For more information about modem troubleshooting, click **Start**, then click **Help and Support**.

Type the keyword **modem troubleshooting** in the **Search** box Search , then click the arrow.

The modem is noisy when it dials and connects

When your modem tries to connect to another modem, it begins *handshaking*. Handshaking is a digital "getting acquainted" conversation between the two modems that establishes connection speeds and communication protocols. You may hear unusual handshaking sounds when the modems first connect. If the handshaking sounds are too loud, you can turn down the modem volume.

To turn down the modem volume:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
2. Click/Double-click the **Phone and Modem Options** icon, then click the **Modems** tab.

3 Click the modem you want to adjust, then click **Properties**.

4 Click the **Modem** tab, then adjust the **Speaker volume** control.

5 Click **OK** twice to close the *Phone and Modem Options* dialog box.

Monitor

The screen resolution is not correct

Change the screen resolution from the *Display Properties* dialog box.

Tips & Tricks



For more information, see "Adjusting the color depth" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

Help and Support



For more information about changing the screen resolution, click **Start**, then click **Help and Support**.

Type the keyword **screen resolution** in the **Search** box Search , then click the arrow.

The computer is running but there is no picture

- Make sure that the monitor is plugged in and turned on. If the monitor is turned on, the power LED should be lit.
- Adjust the brightness and contrast controls to the center position.
- Make sure that the monitor cable is connected to the video port on the back of your computer.
- Check the cable for bent or damaged pins.
- Reinstall the device driver.
- Connect a monitor that you know works to your computer.

The color is not uniform

Make sure that the monitor warms up for at least 30 minutes before making a final judgment about color uniformity.

Make sure that:

- Non-shielded speakers are not placed too close to the monitor.
- The monitor is not positioned too close to another monitor, electric fan, fluorescent light, metal shelf, or laser printer.

- You demagnetize the screen using the monitor's degauss feature. For more information on degauss, see your monitor's documentation.

Why is there a horizontal line or wire visible across the monitor screen?

Your monitor may use a thin *damper* wire, located approximately 1/3 of the way down from the upper screen edge and 1/3 of the way up from the lower screen edge, to stabilize the internal aperture grille. These wires are most obvious when the monitor displays a white background. The aperture grille allows more light to pass through the screen for brighter colors and greater luminescence. The damper wire is a critical part of the overall monitor design and does not negatively affect the monitor's function.

The text on the display is dim or difficult to read

- Adjust the brightness and contrast controls.
- Use the monitor degauss feature (see your monitor documentation) or turn off your computer and monitor, leave them off for at least a half hour, then restart your computer.
- Change the display settings.

Tips & Tricks



For more information, see "Adjusting the screen and desktop settings" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **Gateway Documentation**.

- Move the monitor away from sources of electrical interference, such as televisions, unshielded speakers, microwaves, fluorescent lights, and metal beams or shelves.

For more information about display types, see your monitor and video card documentation.

Mouse

The mouse does not work

- Make sure that the mouse cable is plugged in correctly.
- Shut down and restart your computer.
- Remove all extension cables and switch boxes.
- Try a mouse you know is working to make sure that the mouse port works.

The mouse works erratically

If the mouse pointer begins moving erratically across the computer display or becomes difficult to control precisely, cleaning the mouse will likely improve its accuracy.

If you have an optical mouse, clean the mouse by wiping the bottom with a clean, damp cloth. Make sure that the optical sensor is clean and free of debris.

If you have a trackball mouse, see "Cleaning the mouse" on page 50.

Networks

You cannot connect to your company network

Every network is unique. Contact your company computer department or network administrator for help. For more information about setting up a network in your home, see "Networking Your Computer" on page 85 or see "Troubleshooting Your Ethernet network" on page 119.

Help and Support



For more information about network troubleshooting, click **Start**, then click **Help and Support**.

Type the keyword **network troubleshooting** in the **Search** box Search , then click the arrow.

Passwords

Your computer does not accept your password

Make sure that **CAPS LOCK** is turned off, then retype the password.

Power

Your computer will not turn on

- Make sure that your power cord is connected correctly to your computer.
- If your computer is plugged into a surge protector, make sure that the surge protector is connected securely to an electrical outlet, turned on, and working correctly. To test the outlet, plug a working device, such as a lamp, into the outlet and turn it on.
- Make sure that the power cord is free from cuts or damage. Replace any damaged cables.

Printer

The printer will not turn on

- Make sure that the printer is online. Many printers have an online/offline button that you may need to press.
- Make sure that the power cable is plugged into an AC power source.

The printer is on but will not print

- Check the cable between the printer and your computer. Make sure that it is connected to the correct port.
- Make sure that the printer is online. Many printers have an online/offline button that you may need to press so the printer can start printing. Press the button to put the printer online.
- Check the cable for bent or broken pins.
- If the printer you want to print to is not the default printer, make sure that you have selected it in the printer setup.

To set a default printer:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
2. Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.
3. Right-click the name of the printer you want to be the default printer, then click **Set as Default Printer**.

- Reinstall the printer driver. See the guide that came with your printer for instructions on installing the printer driver.

You see a "Printer queue is full" error message

- Make sure that the printer is not set to work offline.

To make sure that the printer is not set to work offline:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
2. Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.
3. Right-click the name of the printer you want to use. If the menu shows a check mark next to **Use Printer Offline**, click **Use Printer Offline** to clear the check mark.

Help and Support



For more information about printer troubleshooting, click **Start**, then click **Help and Support**.

Type the keyword **printer troubleshooter** in the **Search** box Search , then click the arrow.

- Wait until files have been printed before sending additional files to the printer.
- If you print large files or many files at one time, you may want to add additional memory to the printer. See the printer documentation for instructions for adding additional memory.

You see a "Printer is out of paper" error message

After adding paper, make sure that the printer is online. Most printers have an online/offline button that you need to press after adding paper.

Sound

You are not getting sound from the speakers

- Make sure that the speakers are turned on.
- Make sure that the volume controls are turned up. For more information, see "Adjusting the volume" on page 32.
- Make sure that mute controls are turned off. For more information, see "Adjusting the volume" on page 32.
- If you are using external speakers, see the speaker setup poster to check your speaker connections.

Help and Support



For more information about sound troubleshooting, click **Start**, then click **Help and Support**.

Type the keyword **sound troubleshooter** in the **Search** box Search , then click the arrow.

Chapter 7

Networking Your Computer



- Introducing networking
- Creating an Ethernet network
- Testing your network
- Sharing your resources
- Troubleshooting your Ethernet network

Introduction to networking

A network is a collection of computers and other devices that communicate with each other.

Using a network

A network lets you:

- Share a single Internet connection
- Share computer drives
- Share peripheral devices
- Stream audio and video files
- Play multi-player games

Sharing a single Internet connection

Each computer connected to the network can share the same broadband connection or modem and telephone line to access the Internet at the same time. This saves on the cost of installing another telephone line for your second computer and paying for a second Internet service provider (ISP) account.

Sharing drives

With a network, you can copy files from computer to computer by copying and pasting or dragging and dropping. You will no longer waste your time transferring files by using recordable media. In addition, you can *map* a drive on a networked computer to another computer, and access the files as if they were located on the hard drive of the computer you are using.

Sharing peripheral devices

Each computer that is connected to the network can share the same peripheral devices, such as a printer. Select print from the computer you are currently using and your file is automatically printed on your printer no matter where it is located on your network.

Streaming audio and video files

With a network, you can store audio files (such as the popular .MP3 files) and video files on any networked computer, then play them on any of the other computers or devices connected to your network. This process is called *streaming*.

Playing multi-player games

With a home network, you can play multi-player games. Load a game like *Microsoft Racing Madness 2* on your computers, and in minutes, you and your friends can race in competing cars or on competing motorcycles.

Help and Support



For more information about using a network, click **Start**, then click **Help and Support**.

Type one of these keywords in the **Search** box Search , then click the arrow:

- **internet sharing**
- **sharing network drives**
- **streaming**
- **network games**

Selecting a network connection

The biggest decision you need to make when creating your network is what type of connection you will use. Gateway products support wired and wireless Ethernet networks. Use the following criteria as a guide when selecting a network connection.

Wireless Ethernet network

A wireless Ethernet network is created by using radio emitters that may be embedded into your computer or plugged into it. Create a wireless Ethernet (IEEE 802.11a, IEEE 802.11b, or IEEE 802.11g) network if:

- You are looking for an alternative to installing cable for connectivity
- The ability to move about with your computer is as important as network speed
- Your computer has wireless Ethernet for networking

Using a wireless Ethernet network

A wireless Ethernet network is ideal for creating a home or office network or adding mobility to an existing wired Ethernet network. A wireless Ethernet network lets you move about your home or office with your notebook or tablet PC. For example, you can take your notebook or tablet PC from your home office to your patio without having an Ethernet jack available.

Warning



Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11a, IEEE 802.11b, and IEEE 802.11g communication devices are examples of devices that provide wireless communication.

Important

If your computer came equipped with an internal radio frequency wireless device, see “Safety, Regulatory, and Legal Information” in your user’s guide for general wireless regulatory and safety guidelines. To find out if your computer has an internal wireless device, check the device manager. For more information, see “Determining if wireless Ethernet is already installed on your computers” on page 91.

Important

Note any antenna placement constraints in the user guide of each type of wireless device in your network.

Wireless Ethernet speed and frequency

Wireless Ethernet is available at two different speeds and at two different frequencies. The following table compares the various wireless Ethernet network types.

Network Type	Speed	Frequency	Advantages	Disadvantages
IEEE 802.11a	54 Mbps	5 GHz	Less possible interference than IEEE 802.11b and IEEE 802.11g	▪ Shorter range (25 to 75 feet) than IEEE 802.11b and IEEE 802.11g ▪ Not compatible with IEEE 802.11b or IEEE 802.11g networks
IEEE 802.11b	11 Mbps	2.4 GHz	▪ Large number of access points already exist in airports, college campuses, and businesses ▪ Compatible with IEEE 802.11g networks ▪ Longer range (100 to 150 feet) than IEEE 802.11a	▪ Possible interference from cordless telephones and microwaves ▪ Not compatible with IEEE 802.11a networks

Network Type	Speed	Frequency	Advantages	Disadvantages
IEEE 802.11g	54 Mbps	2.4 GHz	▪ Compatible with IEEE 802.11b networks ▪ Longer range (100 to 150 feet) than IEEE 802.11a	▪ Possible interference from cordless telephones and microwaves ▪ Not compatible with IEEE 802.11a networks

Important



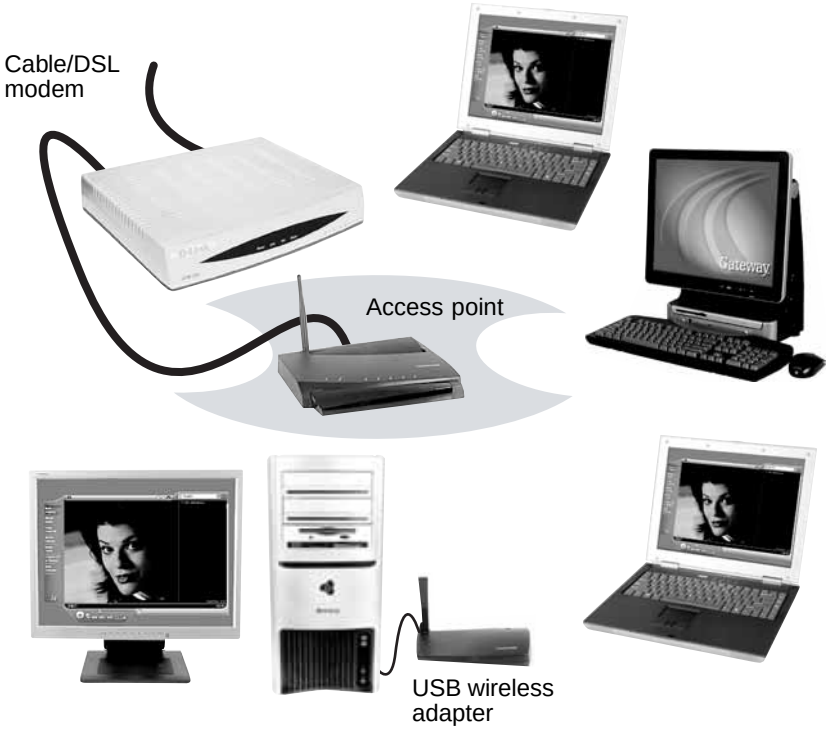
The speed of a wireless network is related to signal strength. Signal strength is affected by the distance between your wireless network devices, by radio interference, and by interference from natural obstructions such as walls, floors, and doors.

The most common way to set up a wireless Ethernet network is Dynamic Host Control Protocol (DHCP) using a wireless access point router. A DHCP network configuration uses an access point router to automatically assign IP addresses to each computer or network device.

Example access point router wireless Ethernet network

By using an *access point*, you can join a wireless Ethernet network and access a wired Ethernet network.

The following is an example of an access point wireless Ethernet network that shows how an access point also lets you access the Internet. The network is made up of an access point, a cable or DSL modem, and your computers. The access point is the central control point for the network. Attached to the access point is the cable or DSL modem that provides access to the Internet. Each of the computers or Ethernet-ready devices communicate with the access point using radio waves. If your computer does not have a built-in wireless Ethernet emitter, you need to add a wireless PCI card (desktop), PC card (notebook), or USB adapter.



Tips & Tricks

To add the ability to access a wired Ethernet network to your wireless Ethernet network, connect an access point to the router or use a router that has a built-in access point, such as the Linksys wireless access point router with 4-port switch. For more information about accessing a wired Ethernet, see "Using a wired Ethernet network" on page 92.

Equipment you need for an access point wireless Ethernet network

For an access point wireless Ethernet network you need:

- Two or more computers with wireless Ethernet emitters
- One access point
- One broadband Internet connection (optional)

Important



IEEE 802.11b and IEEE 802.11g use the same radio frequency. IEEE 802.11a uses a different radio frequency than IEEE 802.11b and IEEE 802.11g. All wireless Ethernet components must use the same frequency. A combination of IEEE 802.11a and IEEE 802.11b or IEEE 802.11a and IEEE 802.11g components will not work. Some wireless devices can broadcast and receive signals on both frequencies.

A mixture of IEEE 802.11b and IEEE 802.11g components will result in your network running at the speed of the slower IEEE 802.11b components.

Tips & Tricks



When buying your access point, be sure the model includes everything your network needs, including:

- 802.11g support - for next-generation, high-speed wireless communications
- Internet security features - such as a firewall to protect your network from unwanted intruders
- Wireless security features - such as 128-bit WEP encryption
- 4-port switch - to eliminate the need for additional network hardware
- DHCP server/dynamic IP address assignment - to automatically configure network and IP addresses

Determining if wireless Ethernet is already installed on your computers

To determine if wireless Ethernet is already installed on your computer:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.
2. Click/Double-click **System**, click the **Hardware** tab, then click **Device Manager**. The *Device Manager* window opens.
3. Click the plus (+) in front of **Network adapters**. The wireless Ethernet device installed in your computer is listed. If one is not listed, you must install one.

Wired Ethernet network

Create a wired Ethernet network by using special wires to connect all the computers and devices on your network. Wired Ethernet networks are typically faster than other network types. Create a wired Ethernet network if:

- You are building a new home or your existing home already has Ethernet cable installed in each room that has a device you want to connect
- You are creating a network in an office or business where network speed is more important than moving about with your computer
- Your computer has an Ethernet jack for connecting to the network

Using a wired Ethernet network

A wired Ethernet network consists of two or more computers connected together through an Ethernet cable. This connection type is commonly used in offices around the world and can be used to build computer networks in the home.

Ethernet, Fast Ethernet, or Gigabit Ethernet

Ethernet is available at three different speeds. Standard Ethernet runs at 10 Mbps, Fast Ethernet runs at 100 Mbps, and Gigabit Ethernet runs at 1000 Mbps. Most home networks are built using Standard or Fast Ethernet components. Business networks are typically built using Fast or Gigabit Ethernet components.

To create a wired Ethernet network, you or your electrician must install special Ethernet cables in your home or office.

Important

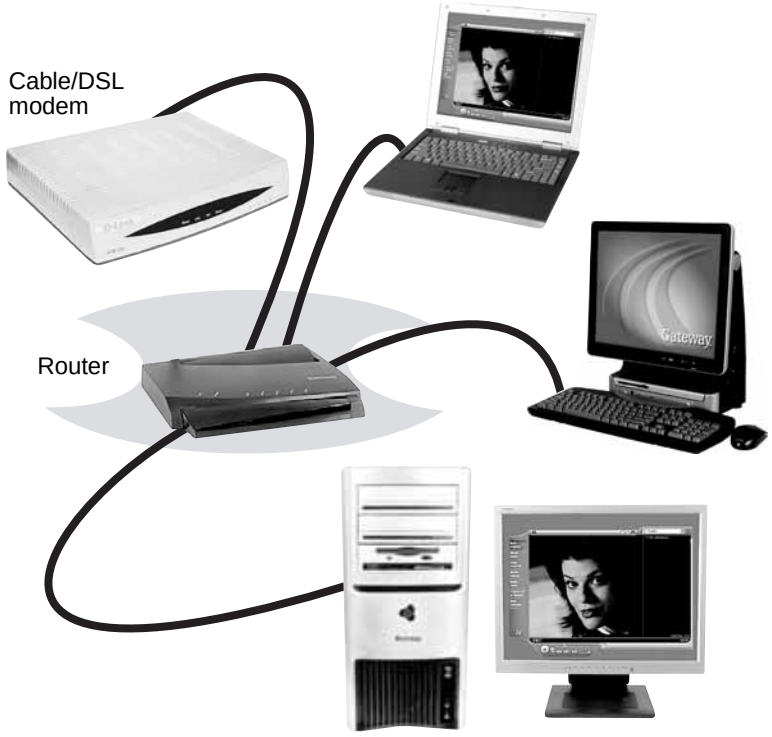


Check local code requirements before installing Ethernet cable or other wiring in your home or office. Your municipality may require you to obtain a permit and hire a licensed installer.

The most common way to set up a wired Ethernet network is Dynamic Host Control Protocol (DHCP) using a router. A DHCP network configuration uses a router to automatically assign IP addresses to each computer or network device.

Example router-based wired Ethernet network

The following is an example of a wired Ethernet network. The network is made up of a router, a cable or DSL modem, your computers, and cables connecting each of these components. The router is the central control point for the network. Attached to the router are all of your computers or Ethernet-ready devices. Also connected to the router is a cable or DSL modem that provides access to the Internet.



Tips & Tricks

To add the ability to access a wireless Ethernet network to your wired Ethernet network, connect an access point to the router or use a router that has a built-in access point, such as the Linksys wireless access point router with 4-port switch. For more information about accessing a wireless Ethernet, see "Using a wireless Ethernet network" on page 87.

Equipment you need for a router-based wired Ethernet network

For a wired Ethernet network you need:

- Two or more computers with Ethernet jacks
- One router
- One broadband Internet connection (optional)
- Ethernet cables connecting all of the network equipment

Determining if wired Ethernet is already installed on your computers

To determine if wired Ethernet is already installed on your computer:

Making sure your broadband connection works

Before you change anything about your home setup, make sure that your broadband connection is working correctly. To test the connection, log onto the Internet using your current setup. If the connection is not working, contact your Internet service provider.

Important



If you do not have a broadband connection already installed, make the necessary arrangements with your ISP. Be sure to find out how soon after the installation the line will be activated.

Important



Broadband Internet settings will differ from ISP to ISP. Before you begin setting up your network, you should contact your ISP for any specific instructions they have for setting up a network.

Naming the computers and the workgroup

Important



You must give each computer on the network a unique Computer Name and the same Workgroup Name.

To identify this computer on the network:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**. The *Performance and Maintenance* window opens.
2. Click/Double-click **System**. The *System Properties* dialog box opens.
3. Click **Computer Name**.
4. Click **Change**. The *Computer Name Changes* dialog box opens.
5. Type a unique computer name in the **Computer name** box. This name identifies the computer to other users on the network. Use a computer name of up to 15 characters with no blank spaces. Each computer name must be unique on your network. All-numeric computer names are not allowed. Names must contain some letters.
6. Type a name for your workgroup in the **Workgroup** box. Use a workgroup name of up to 15 characters with no blank spaces. The workgroup name must be the same for all computers in your network workgroup, and the name must be different than any computer name on your network.
7. Click **OK** to close the *Computer Name Changes* dialog box.



Configuring the TCP/IP protocol

A networking protocol is a language computers use to talk to each other. One of several available protocols must be set up on each computer you plan to use on your network. We recommend you use the Transmission Control Protocol/Internet Protocol (TCP/IP), which is widely accepted and compatible for local area networks (LANs), as well as for Internet communications.

When networking is set up in Windows XP, TCP/IP is automatically installed as the default protocol.

Terms you should know

DHCP - Dynamic Host Configuration Protocol (DHCP) lets a router temporarily assign an IP address to a computer on the network.

IP Address - Internet Protocol (IP) address is a number that uniquely identifies a computer on the network.

Subnet Mask - Subnet mask is a number that identifies what subnetwork the computer is located on. This number will be the same on all computers on a home network.

Using a DHCP server

In order to use the TCP/IP protocol on each computer with a router or access point router, you must set the protocol to "Obtain an IP address from a DHCP server."

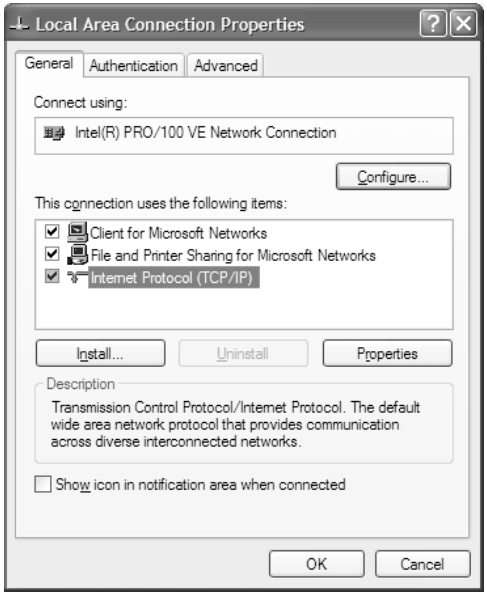
To use a DHCP server

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Network and Internet Connections**. The *Network and Internet Connections* window opens.
2. Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click **Local Area Connection**, then click **Properties**. The *Local Area Connection Properties* dialog box opens.

- OR -

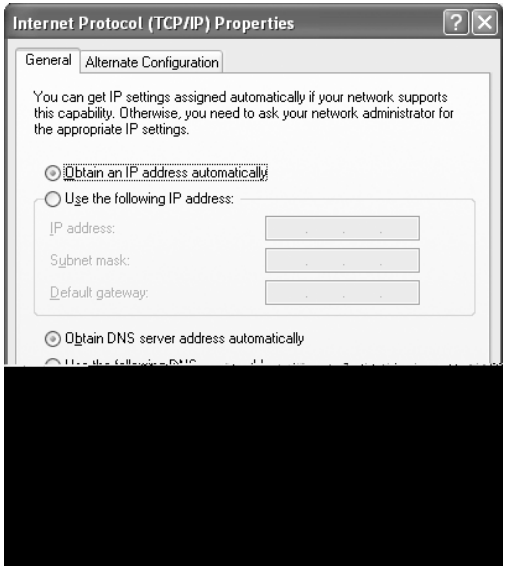
If you do not have a LAN connection setup, click **Create a new connection** and follow the instructions in the New Connection Wizard.



4 Click to select the **Internet Protocol (TCP/IP)** check box in the **This connection uses the following items** list. If you do not see TCP/IP, drag the scroll bar to see more choices.

5 Click **Properties.** The *Internet Protocol (TCP/IP) Properties* dialog box opens.

6 Click the **General** tab.



7 Click **Obtain an IP address automatically**.

8 Click **OK** to close the *Internet Protocol (TCP/IP) Properties* dialog box.

9 Click **OK** to close the *Local Area Connection Properties* dialog box.

10 Click **X** to close the *Network Connections* window.

11 Repeat this procedure for every computer on your network.

Where to go from here

If you are setting up a wireless Ethernet, go to "Setting up a wireless Ethernet network" on page 99.

-OR-

If you are setting up a wired Ethernet, go to "Setting up a wired Ethernet network" on page 106.

Setting up a wireless Ethernet network

See the instructions that came with your access point or wireless access point router for initial setup. How you set up your access point varies depending on the features of the access point and your networking situation.

Mounting the access point

When selecting a place to mount your access point, consider the following guidelines:

- Mount your access point as high as possible (to avoid interference from natural obstacles and appliances).
- Mount your access point in a location where you can run an Ethernet cable from the access point to either your wired Ethernet network or your cable or DSL modem.

Configuring the access point

Important



The following configuration information applies to the Linksys wireless access point router with 4-port switch. For any other brand or model of access point, see the manufacturer's documentation, which may accompany the access point or be available from the manufacturer's Web site.

To configure the Linksys wireless access point router with 4-port switch:

1. If you are connecting any wired devices to your wireless access point router, follow the instructions in "Setting up a network using a router" on page 106, then go to Step 7.

 -OR-

 If you are not connecting any wired devices to your wireless access point router, go to Step 2.

2. Plug one end of a straight-through cable into the WAN port on the wireless access point router and the other end into the DSL or cable modem.
3. Plug one end of the power adapter into the AC connector on the router and the other end into a grounded, 110V electrical outlet.
4. Turn on the DSL or cable modem.
5. Press the reset button on the wireless access point router.
6. Temporarily connect a computer to the wireless access point router using a straight-through cable and turn the computer on.
7. From one of the computers plugged into your wireless access point router, open your Web browser.

8 In the browser's Address box, type **http://192.168.1.1**, then press **ENTER**.

9 When prompted for a username and password, leave the username box empty and type **admin** in the password box, then click **OK**. The setup page opens.

10 Enter the following values in the appropriate fields:

- **Host Name** and **Domain Name** - Check with your ISP to see if entries are required in these fields and, if so, what entries are required.
- **Enable/Disable wireless** - Click **Enable** to turn on the wireless functions of your access point router.
- **SSID** - Type a unique name for your wireless access point.
- **Allow Broadcast SSID to associate** - Clicking **Yes** lets you automatically see the SSID in the **Available Networks** list (see "Connecting to an access point network" on page 101). Clicking **No** means that you will need to manually add the access point (see "Adding an access point" on page 104). Clicking **No** makes your wireless network more secure because intruders will not be able to connect to your network without knowing the name of your access point.

Tips & Tricks



If you live in an apartment building or dormitory, you may want to click **No** to prevent your neighbors from discovering and accessing your network.

- **Channel** - In the United States, you can specify any channel between 1 and 11.
- **WEP** - To use WEP (wired equivalent privacy) encryption, select **Mandatory**. If you use WEP encryption, all computers on your network must use the same WEP encryption. See the documentation that came with your access point on how to use WEP encryption.
- **WAN Connection Type** - If your ISP assigns you a different IP address each time you log on, click **Obtain an IP Address Automatically**. If your ISP requires a fixed IP address, click **Static IP**, then type the values provided by your ISP.

11 Click **Apply**, then click **Continue** to save the settings.

12 If you temporarily connected a computer to the access point router in Step 6, disconnect it.

13 Reset the power on your cable or DSL modem.

14 Restart all of your computers on the network.

15 To connect to the access point, see "Connecting to an access point network" on page 101.

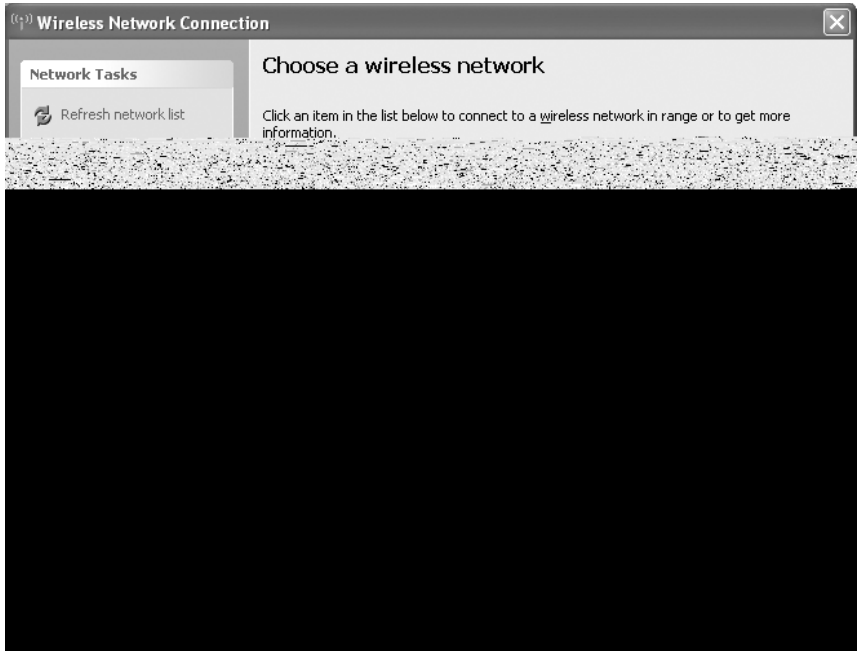


Connecting to an access point network

After you have set up your wireless access point, you need to set up the network connection on your computers.

To connect to an access point wireless Ethernet network:

1. Before connecting to an access point, you must turn on the wireless Ethernet emitter by clicking **Start**, then clicking **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Network and Internet Connections**. The *Network and Internet Connections* window opens.
2. Click/Double-click **Network Connections**. The *Network Connections* window opens.
3. Right-click the **Wireless Network Connection** icon, then click **View available wireless networks**. The *Choose a wireless network* window opens.



4. Click the network you created in the Choose a wireless network list, then click **Connect**. Follow the onscreen instructions to complete the wireless network connection.

 -OR-

 If you are unable to connect to the network in the Choose a wireless network list, click the **Learn about wireless networking** topic located in the Related Tasks area.

Help and Support

For more information about connecting to a wireless network, click **Start**, then click **Help and Support**.

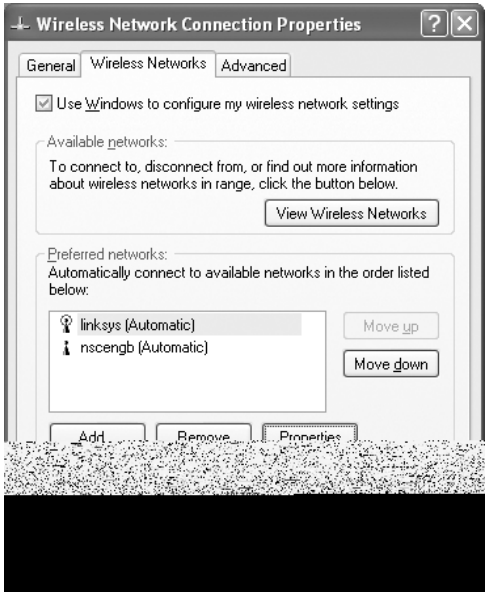
Type the keyword **connecting to wireless network** in the **Search** box Search , then click the arrow.

Configuring computer settings for an access point

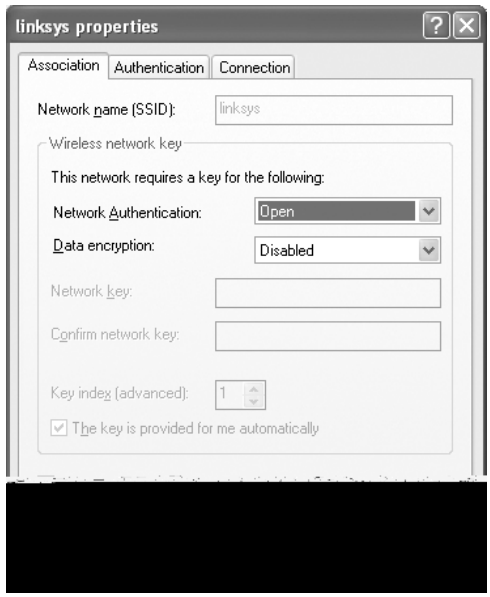
If you are unable to connect to an access point in the Choose a wireless network list, the most likely cause is that the access point is using WEP security. You need to configure your network settings to use the same WEP security settings as those used by the access point.

To configure computer settings with WEP security for an access point wireless Ethernet network:

1. With the *Wireless Network Connection* window open, click **Change advanced settings**. The *Wireless Network Connection Properties* dialog box opens.
2. Click the **Wireless Networks** tab.



3 Click to select the access point network in the **Preferred networks** box, then click **Properties**. The *network properties* dialog box opens. The name of the network already appears in the **Network name (SSID)** box.



4 Click the arrow button to open the Data encryption list, then click **WEP**.

5 If the WEP network key **is not** provided automatically, click to clear **The key is provided for me automatically** check box, then type the network key settings in the **Network key** and **Confirm network key** boxes to match those set on the access point.

- OR -

If the WEP network key **is** provided automatically, then leave the check mark selected in **The key is provided for me automatically** check box.

6 Make sure that the **This is a computer-to-computer (ad hoc) network; wireless access points are not used** check box is not selected.

7 Click **OK** to close the *Wireless Network Properties* dialog box. Your network should be running. Go to "Testing your network" on page 109.

Help and Support

For more information about configuring a wireless network, click **Start**, then click **Help and Support**.

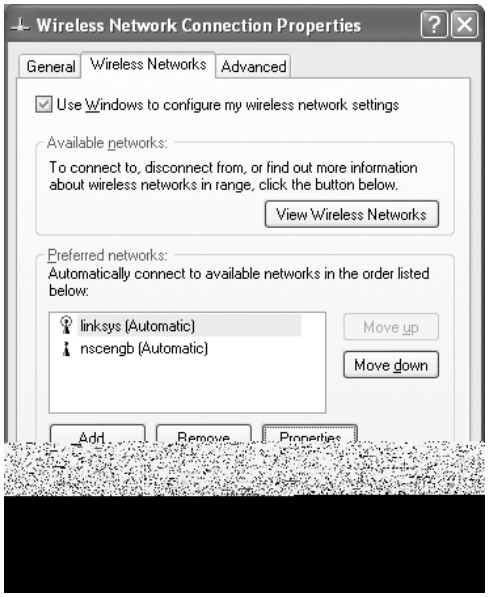
Type the keyword **wireless network** in the **Search** box Search , then click the arrow.

Adding an access point

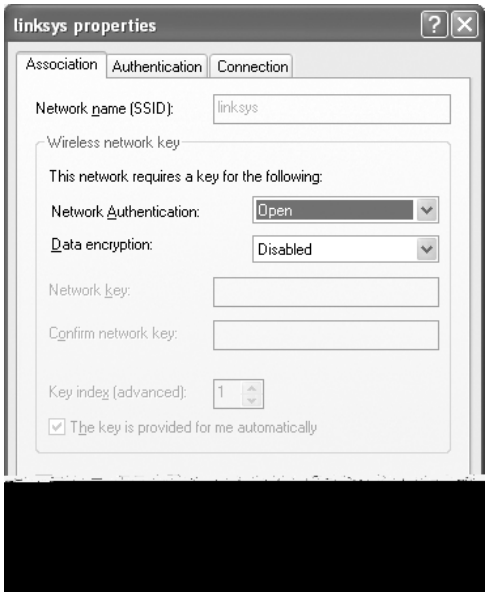
If an access point does not appear in the **Available networks** list, and you know the access point is turned on, you need to add it manually. This typically happens when you set the access point's **Allow Broadcast SSID to associate** to **No**. For more information, see "Configuring the access point" on page 99.

To manually add an access point wireless Ethernet network:

1. With the *Wireless Network Connection* window open, click **Change order of preferred networks**. The *Wireless Network Connection Properties* dialog box opens.
2. Click the **Wireless Networks** tab.



3 Click **Add**. The *network properties* dialog box opens.



4 Type the name of the network in the **Network name (SSID)** box.

5 Click the arrow button to open the **Network Authentication** list, then click the network authentication option you want.

6 If this is a security-enabled network, click the arrow button to open the **Data encryption** list, then click **WEP**.

7 If the WEP network key **is not** provided automatically, click to clear **The key is provided for me automatically** check box, then type the network key settings in the **Network key** and **Confirm network key** boxes to match those set on the access point.

- OR -

If the WEP network key **is** provided automatically, then leave the check mark selected in **The key is provided for me automatically** check box.

8 Make sure that the **This is a computer-to-computer (ad hoc) network; wireless access points are not used** check box is not selected.

9 Click **OK** to close the *Wireless Network Properties* dialog box. Your network should be running. Go to "Testing your network" on page 109.

Help and Support



For more information about configuring a wireless network, click **Start**, then click **Help and Support**.

Type the keyword **wireless network** in the **Search** box Search , then click the arrow.

Setting up a wired Ethernet network

We recommend using category 5, unshielded, twisted-pair cable (approximately 1/4” in diameter with a thin outer-jacket, containing eight color-coded wires), and equipment compatible with this type of cable. This type of cable is equipped with RJ-45 connectors (like a large telephone jack connector, but with eight pins) on each end.

Important



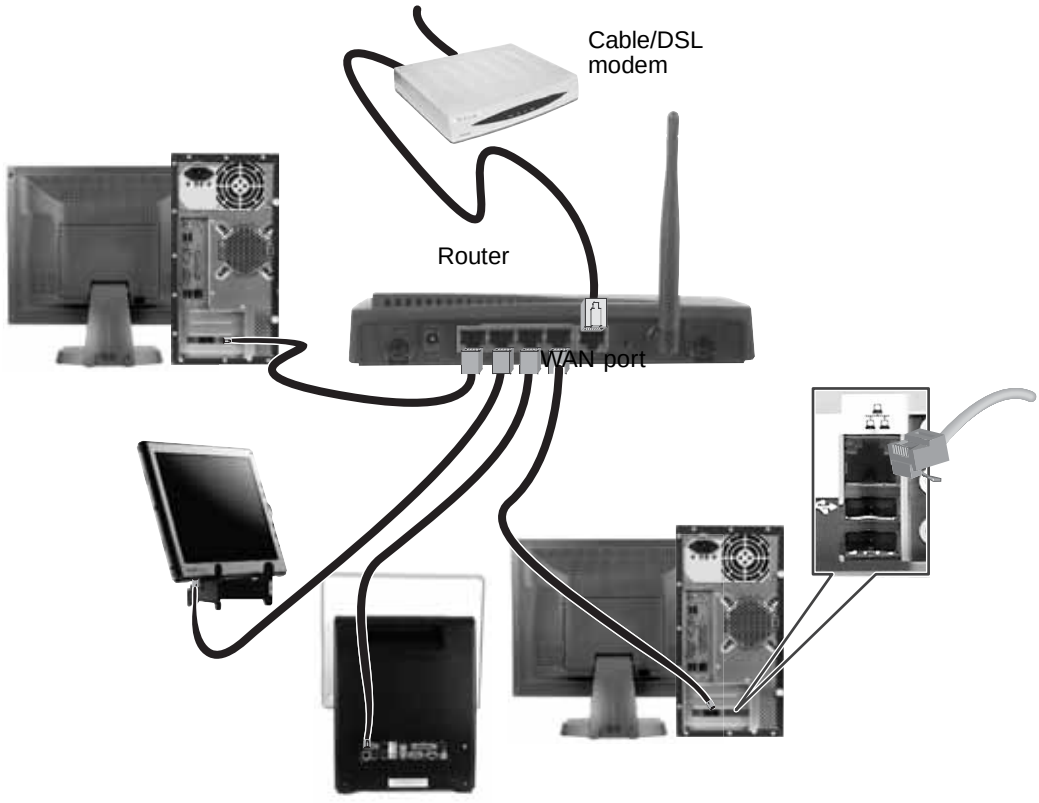
Category 5 cables are available in two different types; straight-through cables, used to connect computers to a router, and crossover cables, used to connect two computers.

To determine which type of cable you have, hold both ends of the cable with the connectors facing away from you and with the spring clip on the bottom. For straight-through cable, the wires on both connectors are attached to copper pins in the same order (same colors, left to right). For a crossover cable, the wires on each connector are attached to the copper pins in a different order (different colors, left to right).

Setting up a network using a router

If you are setting up a network for more than two computers and you will be connecting your network to a high-speed Broadband Internet connection (cable or DSL modem), we recommend the use of a router. A router lets you access the Internet connection from any network computer. The router can assign IP addresses to the computers on the network and can provide firewall protection for your network as well.

In addition to a router, you need a straight-through cable for each computer you want to connect to the network.



To set up a network using a router:

1. Plug one end of the power adapter into the AC connector on the router and the other end into a grounded, 110V electrical outlet.
2. Turn on your computers.
3. Plug one end of a straight-through network cable into any numbered port on the router (except the WAN port). The WAN port is used to connect the router to the DSL or cable modem, and is identified by a label or a switch. Plug the other end of the cable into the network connector on the computer. As each computer is connected to the router, the corresponding green indicator should light on the front of the router, indicating a good connection.
4. Repeat Step 3 for each computer on the network.

5 For an Internet connection, plug a straight-through cable into the WAN port on the router and the other end into the Ethernet jack on the DSL or cable modem.

Configuring your router

After you have named your computers and set up TCP/IP on them, you can configure your router using your Web browser. For these instructions, we assume that you are using the router to connect your network to a high-speed Broadband Internet connection through an Internet service provider (ISP) and that you are configuring it as a DHCP server.

Important



The following configuration information applies to the Linksys® EtherFast Cable/DSL routers. For any other brand or model of router, see the manufacturer's documentation, which may accompany the router or be available from the manufacturer's Web site.

To configure the Linksys EtherFast Cable/DSL router:

1 From one of the computers connected to the network, open your Web browser, type **http://192.168.1.1** in the browser's address box, then press **ENTER**.

2 When prompted for a username and password, leave the username box empty and type **admin** in the password box, then click **OK**. The Setup page opens.

3 Enter the following values in the appropriate fields:

- **Router Name** and **Domain Name** - Check with your ISP to see if entries are required in these fields and, if so, what entries are required. Normally, leaving the fields blank will work.
- **LAN IP Address** - We recommend that you accept the defaults.
- **WAN IP Address** - If your ISP assigns you a different IP address each time you log on, click **Obtain an IP Address Automatically**. If your ISP requires a fixed IP address, click **Specify an IP Address**, then type the values provided by your ISP.

4 When you are finished entering information on the Setup page, click **Apply**.

5 Click the **DHCP** tab on the top of the screen.

6 Click the **Enable** checkbox, then click **Apply**.

7 Press the reset button on your cable or DSL modem, then restart the computer. Your network should be running. Go to "Testing your network" on page 109.

Testing your network

Sharing your resources

Sharing an Internet connection

Internet sharing lets all computers on the network access the Internet at the same time using one Internet service provider (ISP) connection.

Important



The Internet setup procedure uses the Windows XP New Connection Wizard and Internet Explorer. The example screens show those screens that typically appear in the course of using the wizard. If your Internet connection differs from that used in this example, you may encounter additional screens or screens with different selections. Make sure that you read each screen in the wizard and make your selections based on your particular Internet connection situation.

If you use a browser other than Internet Explorer, see the help provided with that browser for configuring it for use on a network.

Important



If you are using a dial-up modem instead of a broadband connection, see the documentation that came with your router or access point for the correct procedure.

To set up Internet Explorer on each computer on your Ethernet network:

1. Make sure that the router or access point is turned on and configured as instructed by your cable or DSL provider.
2. Click **Start**, right-click **Internet**, then click **Internet Properties**. The *Internet Properties* dialog box opens.

3 Click the **Connections** tab.



4 Click **Setup**. The New Connection Wizard opens.

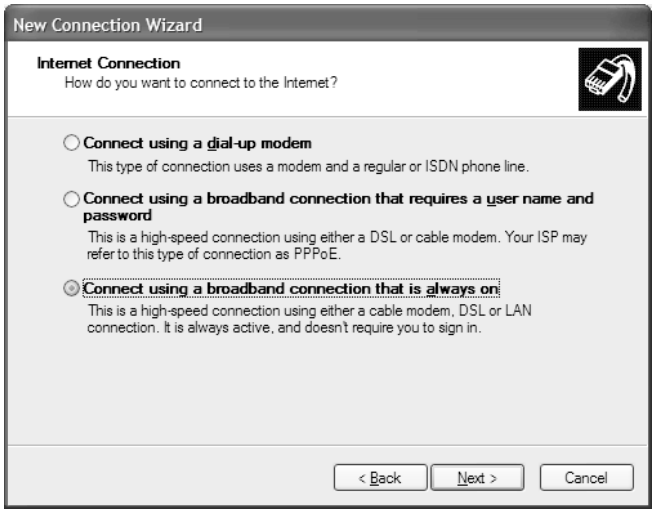
5 Click **Next**. The *Network Connection Type* screen opens.



6 Click **Connect to the Internet**, then click **Next**. The *Getting Ready* screen opens.



7 Click **Set up my connection manually**, then click **Next**. The *Internet Connection* screen opens.



8 Click the type of Internet connection you are setting up, then click **Next**.

9 Click **Finish**.

10 Repeat this procedure for each computer on your network. Go to "Accessing the Internet" on page 113.

To access the Internet from your computer:

1. Make sure that the router or access point is turned on.
2. Open Internet Explorer and browse the Internet.

Sharing drives and printers

With a network, you can *share* drives (for example hard drives, diskette drives, and CD or DVD drives) and printers among the computers connected to the network.

After the drives and printers on each network computer are shared, you can access them as though they were attached directly to your computer. Then you can:

- View a network drive
- Open and copy files stored on other network computers
- Print documents on network printers

Important

To share a printer among the network computers, each computer must have the shared printer's drivers installed. Follow the instructions included with your printer to install the printer drivers on each computer.

Sharing drives or folders

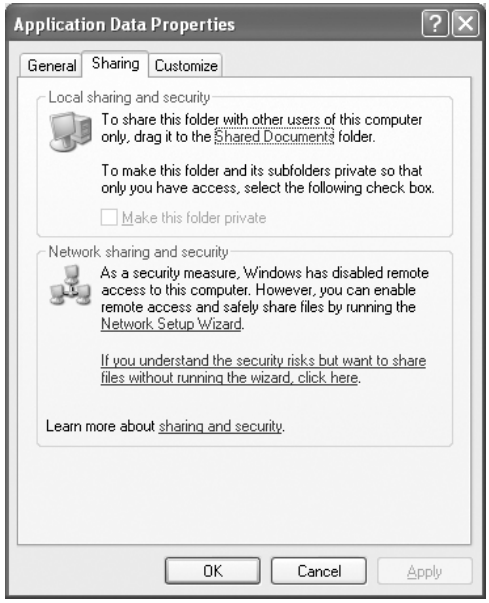
If you want to share a drive or folder, use the following instructions.

To share drives or folders:

1. Make sure that each computer on your network has Windows file and printer sharing turned on by following the steps in "Sharing drives or folders" on page 113.
2. In My Computer or Windows Explorer, right-click the drive or folder that you want to share, then click **Sharing and Security**. The folder properties dialog box opens.

 If you share a drive, the entire contents of that drive will be available to everyone on your network. If you share a folder, only the contents of that folder will be available to everyone on the network.

3 Click the **Sharing** tab.



4 If this is the first time you have shared a drive or folder, click **Network Setup Wizard** to enable remote access, then follow the on-screen instructions.

- OR -

If you have previously enabled remote file access and you want to share a drive or folder with others on the network (network sharing), click to select the **Share this folder on the network** check box, type a shared name in the **Shared name** box. To let other users have full permissions to read and write to the shared drive or folder, click to select the **Allow network users to change my files** check box.

5 Click **OK**.

Un-sharing drives, folders, and files

To un-share drives or folders:

1. In My Computer or Windows Explorer, right-click the drive or folder that you want to un-share, then click **Sharing and Security.**
2. Make sure that the **Share this folder on the network** check box is not selected.
3. Click **OK**.

Sharing printers

To share printers:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
2. Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.
3. Right-click the name of the printer you want to share, then click **Sharing**.
4. Click **Share this printer.**
5. Click **OK**.

Using the network

After the drives and printers on each network computer are shared, you can:

- View shared drives and folders
- Map a network drive
- Open and copy files stored on other network computers
- Print documents on network printers

Viewing shared drives and folders

To view shared drives and folders:

1. Click **Start**, then click **My Network Places**. The *My Network Places* window opens.
2. Click/Double-click **Entire Network**. The *Entire Network* window opens. If you do not see the contents of the network after you double-click **Entire Network**, click **entire contents**.
3. Double-click **Microsoft Windows Network**.
4. Double-click the name of your workgroup. The names of each of the computers in your workgroup are listed. For more information about workgroups, see "Naming the computers and the workgroup" on page 95.
5. Double-click the name of the computer containing the drive or folder you want to view. All shared drives and folders are listed.

Mapping a network drive

After a drive or folder on one computer is mapped as a drive on another computer, the contents of the drive or folder can be accessed as if the drive were attached directly to the computer.

For example, the My Documents folder on computer 1 is mapped as the Z drive on computer 2. To access the My Documents folder on computer 1 from computer 2, double-click the Z drive.

To map a network drive:

1. Locate the drive or folder by completing the steps in "Viewing shared drives and folders" on page 116.
2. Right-click the drive or folder, then click **Map Network Drive**. The Map Network Drive wizard opens.
3. Click the arrow button to open the **Drive** list, then click the drive letter you want to map this drive or folder to.
4. Click **Reconnect at Logon** if you want to reconnect to this drive or folder each time you log on to the network.
5. Click **Finish**.

Opening files across the network

To open files across the network:

1. Start the program for the file you want to open.
2. Click **File**, then click **Open**.
3. Browse to the network drive that contains the file you want to open.
4. Double-click the folder containing the file, then double-click the file.

Copying files across the network

To copy files across the network:

1. Click **Start**, then click **My Computer**. The *My Computer* window opens.
2. Browse to the network drive that contains the file you want to copy, then browse to the file you want to copy.
3. Click the file.
4. Click **Edit**, then click **Copy**.
5. Double-click the folder where you want to copy the file to, click **Edit**, then click **Paste**.

Printing files across the network

Important

Before you can print a file across the network, you must install the driver for the printer on the computer you are sending the file from. You can obtain the printer driver and installation instructions from the CD that shipped with your printer or from the manufacturer's Web site.

To print files across the network:

1. Open the file you want to print.
2. Click **File**, then click **Print**.
3. Click the arrow button to open the printer name list, then click the network printer.
4. Click **OK**.

Connecting to hotspots

A hotspot is a high-speed wireless Internet access point available in public locations such as airports, airline clubs, libraries, book shops, and coffee houses.

While you are away from your home office, hotspots let you send and receive e-mail, surf Web sites, or access your company's network.

Important



If you want to access your company's network through a hotspot, contact your network administrator for setup information. You will probably be routed through a VPN connection for maximum security.

You usually need to sign up to get access through hotspot connections. During the sign-up process, the vendor will provide you with the necessary connection information.

To access any new network, obtain information about the network (such as the SSID, password key, and security settings to use) and enter that information. See "Configuring computer settings for an access point" on page 102 for instructions.

Caution



Because hotspots typically do not enable any security measures, the data that you are sending and receiving may be vulnerable.

Any of the files on your computer that are marked for sharing may be accessible to other users on the network.

Troubleshooting Your Ethernet network

Wired Ethernet network

You cannot see the other computers on your network

- Make sure that your Ethernet cable is plugged into the Ethernet jack on your computer. Make sure that the other end is plugged into a router.
- Make sure that all computers are plugged into a powered electrical outlet and turned on.
- Make sure that the router is plugged into a powered electrical outlet and turned on. Most routers have lights that indicate they are working. For more information, see the documentation that came with your router.
- Make sure that all computers on your network have the same workgroup name.
- Make sure that all computers are using the same Subnet Mask.
- If you assigned IP addresses to the computers, make sure that all computers have different IP addresses. For home networks, IP addresses should be 192.168.N.N where N is a number you assign between 0 and 254. The first N should be the same for all computers on your network and the second N should be different for all computers on your network.

The computer does not recognize an add-in Ethernet card

- Shut down and restart your computer.
- Make sure that you have installed the required software. For more information, see the documentation that came with your Ethernet card.
- Reseat the card. For more information, about opening your computer case, see “Opening the case” on page 54. For more information about your Ethernet card, see the documentation that came with your Ethernet card.

Your wired Ethernet network is running slower than you expect

- If your wired Ethernet network is running slower than you expect, check the speed of each Ethernet component. For best results, all Ethernet components should be standard Ethernet (10 Mbps), Fast Ethernet (100 Mbps or 10/100 Mbps), or Gigabit Ethernet (1000 Mbps or 10/100/1000 Mbps). A mixture of Ethernet, Fast Ethernet, and Gigabit Ethernet components will result in your network running at the slowest component speed.

Wireless Ethernet network

You turned the wireless on, but it takes a while to connect.

- When the wireless emitter is turned on, it automatically scans for available connections, which can take approximately 30 seconds to complete.

Your connection on the network seems intermittent.

- In addition to other factors, the strength of a wireless connection is determined by the distance from the access point and structural material that the signal must travel through (such as walls, cabinets, ceilings, and floors.)

 If you cannot relocate, see if you can improve the connection by changing the channel of the access point.

Your wireless Ethernet network is running slower than you expect

- If your wireless Ethernet network is running slower than you expect, you should check your network signal strength. If you find the signal strength is low, try moving to a new location to increase the signal strength.

Important

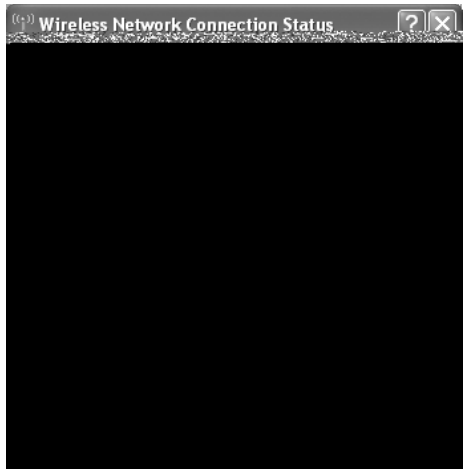


Signal strength is affected by the distance between your wireless network devices, by radio interference, and by interference from natural obstructions such as walls, floors, and doors.

To check the signal strength of your wireless Ethernet network:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Network and Internet Connections**. The *Network and Internet Connections* window opens.
2. Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click **Wireless Network Connection**, then click **Status**. The *Wireless Network Connection Status* dialog box opens. The meter shows the signal strength for wireless Ethernet networking on your computer if other computers with the same network name are within range of your computer.



You are in a wireless network, you can see the network, but cannot communicate, send files, print, or get to the Web.

- If WEP is used by your access point, go to the Windows XP *Wireless Networking Properties* window and make sure that both the WAP and the WLAN in the computer have matching WEP keys.

You are in a wireless network, but no available networks are listed in the Windows XP Wireless Networking utility.

- If the network you are attempting to access does not broadcast its SSID, you need to request the SSID from the administrator and add that network's information into the wireless utility. For more information, see "Adding an access point" on page 104.
- You may want to try entering **ANY** as the SSID, which will make the computer try to auto-detect the network.

Your wireless network is listed as a preferred network, but it has an "x" on it.

- An **x** means your preferred network is not currently available or you are not currently in range to connect.

Appendix A

Safety, Regulatory, and Legal Information



- Safety information
- Regulatory statements
- Notices

Important safety information

Your Gateway system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.

Warning



Always follow these instructions to help guard against personal injury and damage to your Gateway system.

Setting up your system

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only from the type of power source indicated on the rating label.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area. The voltage selector switch is set at the factory to the correct voltage.
- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.
- Some products are equipped with a three-wire power cord to make sure that the product is properly grounded when in use. The plug on this cord will fit only into a grounding-type outlet. This is a safety feature. If you are unable to insert the plug into an outlet, contact an electrician to install the appropriate outlet.
- If you use an extension cord with this system, make sure that the total ampere rating on the products plugged into the extension cord does not exceed the extension cord ampere rating.
- If your system is fitted with a TV Tuner, cable, or satellite receiver card, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and buildup of static charges.

Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to avoid eating and drinking near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions.
- When the computer is turned off, a small amount of electrical current still flows through the computer. To avoid electrical shock, always unplug all power cables and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
 - The power cord or plug is damaged.
 - Liquid has been spilled into the system.
 - The system does not operate properly when the operating instructions are followed.
 - The system was dropped or the cabinet is damaged.
 - The system performance changes.

Replacement parts and accessories

Use only replacement parts and accessories recommended by Gateway.

Warning



Do not use Gateway products in areas classified as hazardous locations. Such areas include patient care areas of medical and dental facilities, oxygen-laden environments, or industrial facilities.

Warning



To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

Regulatory compliance statements

United States of America

Federal Communications Commission (FCC) Unintentional emitter per FCC Part 15

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a different circuit from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Compliance Accessories: The accessories associated with this equipment are: shielded video cable when an external monitor is connected. These accessories are required to be used in order to ensure compliance with FCC rules.

FCC declaration of conformity

Responsible party:

Gateway Companies, Inc.
610 Gateway Drive, North Sioux City, SD 57049
(605) 232-2000Fax: (605) 232-2023

Product:

Gateway E-4300

This device complies with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution



Changes or modifications not expressly approved by Gateway could void the FCC compliance and negate your authority to operate the product.

California Proposition 65 Warning

Warning



This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or reproductive harm.

Telecommunications per Part 68 of the Code of Federal Regulations (CFR 47) (applicable to products fitted with USA modems)

Your modem complies with Part 68 of the Code of Federal Regulations (CFR 47) rules. On the computer or modem card is a label that contains the FCC registration number and Ringer Equivalence Number (REN) for this device. If requested, this information must be provided to the telephone company.

A telephone line cord with a modular plug is required for use with this device. The modem is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68-compliant. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices which may be connected to the telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

If this device causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. The telephone company may request that you disconnect the equipment until the problem is resolved.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

This equipment cannot be used on telephone company-provided coin service. Connection to party line service is subject to state tariffs. Contact the state public utility commission or public service commission for information.

When programming or making test calls to emergency numbers:

- Remain on the line and briefly explain to the dispatcher the reason for the call.
- Perform such activities in the off-peak hours such as early morning or late evenings.

The United States Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent, an identification of the business, other entity, or other individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. Refer to your fax communication software documentation for details on how to comply with the fax-branding requirement.

Canada

Industry Canada (IC) Unintentional emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

Telecommunications per Industry Canada CS-03 (for products fitted with an IC-compliant modem)

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should make sure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should make sure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Warning



To avoid electrical shock or equipment malfunction do not attempt to make electrical ground connections by yourself. Contact the appropriate inspection authority or an electrician, as appropriate.

The **Ringer Equivalence Number** (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Laser safety statement

All Gateway systems equipped with CD and DVD drives comply with the appropriate safety standards, including IEC 825. The laser devices in these components are classified as "Class 1 Laser Products" under a US Department of Health and Human Services (DHHS) Radiation Performance Standard. Should the unit ever need servicing, contact an authorized service location.

Warning



Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. To prevent exposure to laser beams, do not try to open the enclosure of a CD or DVD drive.

Notices

Copyright © 2004 Gateway, Inc.
All Rights Reserved
14303 Gateway Place
Poway, CA 92064 USA

All Rights Reserved

This publication is protected by copyright and all rights are reserved. No part of it may be reproduced or transmitted by any means or in any form, without prior consent in writing from Gateway.

The information in this manual has been carefully checked and is believed to be accurate. However, changes are made periodically. These changes are incorporated in newer publication editions. Gateway may improve and/or change products described in this publication at any time. Due to continuing system improvements, Gateway is not responsible for inaccurate information which may appear in this manual. For the latest product updates, consult the Gateway Web site at www.gateway.com. In no event will Gateway be liable for direct, indirect, special, exemplary, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages.

In the interest of continued product development, Gateway reserves the right to make improvements in this manual and the products it describes at any time, without notices or obligation.

Trademark Acknowledgments

Gateway and the Black-and-White Spot Design are trademarks or registered trademarks of Gateway, Inc. in the U.S. and other countries. SpotShop, Spotshop.com, and Your:)Ware are trademarks of Gateway, Inc. Intel, Intel Inside logo, and Pentium are registered trademarks and MMX is a trademark of Intel Corporation. Microsoft, MS, MS-DOS, and Windows are trademarks or registered trademarks of Microsoft Corporation. All other product names mentioned herein are used for identification purposes only, and may be the trademarks or registered trademarks of their respective companies.

Index

A

AC power connector 9, 14
access point
 adding 104
 configuring 99, 102
 connecting to 101
 mounting 99
accessing
 Internet 113
 shared drives 116
 shared files 117
 shared folders 116
accessories 19
 safety precautions 124
activity indicators
 See indicators
adding
 access point 104
application key 29, 30
arrow keys 29, 30
audio
 audio in jack 9, 14
 front speaker jack 9, 14
 headphone jack 9, 14
 line in jack 9, 14
 line out jack 9, 14
 microphone jack 7, 9, 12, 14
 muting 31, 32
 side speaker jack 9, 14
 streaming 86
audio CD
 See CD
audio file
 streaming 86
audio in jack 9, 14

B

battery
 replacing 59, 65
bezel
 removing 61
broadband connection 33, 86, 95
 connecting 10, 15

C

cable lock 10, 14
cable modem 33, 89, 93, 99, 106
 connecting 10, 15
Caps Lock indicator 29, 30
cards
 inserting memory card 39
 removing memory card 39
 troubleshooting add-in card 69
 troubleshooting memory card 76
 types of memory cards supported 39
case
 opening 54, 60
cases
 maintaining Micro Tower 54
 maintaining Mid Tower 60
 Micro Tower 6
 Mid Tower 11
CD
 cleaning 52
 controlling play with keyboard 31
 inserting 42
 playing audio 43
 recording 43
 troubleshooting 69
CD drive
 identifying 41
 locating drive 7, 12
 troubleshooting 69
 using 41
cellular phone
 memory cards 39
Certificate of Authenticity 18
cleaning
 audio CD 52
 case 49
 CD 52
 computer exterior 49
 computer screen 50
 DVD 52
 keyboard 50
 mouse 50
 screen 50

closing
computer case 56, 61
unresponsive program 28
computers
naming 95
configuring
access point 99, 102
router 108
TCP/IP protocol 96
connecting
modem 32
PS/2 keyboard 9, 14
PS/2 mouse 10, 14
to access point 101
to Ethernet network 10, 15, 33
to hotspots 118
to Internet 10, 15, 33
to network 10, 15, 33
connections
audio in 9, 14
digital camera 7, 9, 12, 14, 34
digital video camera 10, 12, 15, 34
Ethernet 10, 15, 33
external audio 9, 14
external speakers 9, 14
Firewire 10, 12, 15, 34
front speaker 9, 14
headphone 9, 14
i.Link 10, 12, 15, 34
IEEE 1394 10, 12, 15, 34
keyboard 7, 9, 12, 14
line in 9, 14
line out 9, 14
microphone 7, 9, 12, 14
modem 10, 15, 32
monitor 9, 14
mouse 7, 9, 10, 12, 14
network 10, 15, 33
parallel 10, 15
power 9, 14
power cord 9, 14
printer 7, 9, 10, 12, 14, 15
PS/2 keyboard 9, 14
PS/2 mouse 10, 14
scanner 7, 9, 12, 14
serial 9, 14
side speaker 9, 14
S-Video (TV) out 14
telephone 9, 14
USB 7, 9, 12, 14
video camera 10, 12, 15
Zip drive 7, 9, 12, 14
copying files across network 117

D

default printer 82
DHCP 96
digital camera
locating serial port 9, 14
locating USB port 7, 9, 12, 14
digital video camera
locating IEEE 1394 port 10, 12, 15
DIMM
See memory
directional keys 29, 30
diskette
troubleshooting 71
diskette drive
identifying 36
troubleshooting 71
using 36
display
troubleshooting 72
documentation
help 2
Help and Support 2
online help 4
Using Your Computer 3
domain name 100, 108
drives
CD 7, 12, 41
diskette 7, 12, 36
DVD 7, 12, 41
identifying drive types 41
mapping network 116
recordable CD 7, 12, 41
recordable DVD 7, 12, 41
sharing 86, 113
troubleshooting 69, 71, 72, 73
types 41
Zip 7, 12, 38
DSL modem 33, 89, 93, 99, 106

connecting 10, 15
DVD
cleaning 52
controlling play with keyboard 30
drive 41
inserting 42
playing 43
recording 43
troubleshooting 69
DVD drive
identifying 41
locating drive 7, 12
troubleshooting 69, 72
using 41
Dynamic Host Configuration Protocol 96

E

electrostatic discharge (ESD) 53
e-mail
button 31
entering
IP address 96
subnet mask 96
ergonomics 22
eSupport 18
Ethernet
connecting 33
installing cards 94
installing drivers 94
jack 33
Ethernet jack 10, 15
Ethernet network
creating 94
external audio jack 9, 14

F

Fast Ethernet 92
faxes
troubleshooting 77
files
opening shared 117
troubleshooting 72
finding
Help and Support topics 3
specifications 18
Firewire port 10, 12, 15, 34
folders
sharing 113
function keys 29, 30

G

game
multi-player 87
Gateway
eSupport 18
serial number 18
Gigabit Ethernet 92

H

hard drive
troubleshooting 73
headphone jack 7, 9, 12, 14
help
button 31
online 4
using 2
Help and Support 2
searching 3
starting 2
Hibernate mode 7, 12
hotspots
connecting to 118

I

i.Link port 10, 12, 15, 34
IEEE 1394 port 10, 12, 15, 34
indicators
Caps Lock 29, 30
CD drive 42
diskette drive 36
DVD drive 42
Num Lock 29, 30
numeric keypad 29, 30
Pad Lock 29, 30
power 7, 12
Scroll Lock 29, 30
inkjet printer 19
installing
battery 59, 65
devices 34
digital camera 34
digital video camera 34

front bezel 61
memory 57, 64
memory card 39
peripheral devices 34
printer 34
scanner 34
system battery 59, 65
Internet
accessing 113
broadband connection 33
button 31
sharing access 86, 110
troubleshooting 74, 77
IP address
entering 96
LAN 108
WAN 100, 108

J

jacks
See connections

K

Kensington cable lock
lock slot 10, 14
keyboard
buttons 29, 31
cleaning 50
features 29
Multifunction keyboard features 30
PS/2 port 9, 14
troubleshooting 75
USB port 7, 9, 12, 14
keys
application 29, 30
arrow 29, 30
directional 29, 30
function 29, 30
Multifunction keyboard 30
navigation 29, 30
numeric 29, 30
Windows 29, 30

L

label
Microsoft Certificate of Authenticity 18
LAN IP Address 108
laser printer 19
LCD panel
troubleshooting 72, 79
lights
See indicators
line in jack 9, 14
line out jack 9, 14
lock slot
Kensington cable 10, 14

M

maintaining
Micro Tower case 54
Mid Tower case 60
maintenance
cleaning case 49
cleaning component exteriors 49
cleaning computer display 50
cleaning computer screen 50
cleaning keyboard 50
cleaning mouse 50
protecting from viruses 47
mapping network drives 116
memory 39
adding 57, 64
installing 57, 64
purchasing 19
replacing 57, 64
troubleshooting 75
memory card reader
memory card types supported 39
using 39
Micro Tower case 6
microphone jack 7, 9, 12, 14
Microsoft Certificate of Authenticity 18
Mid Tower case 11
modem
cable 33, 89, 93, 99, 106
connecting 32
DSL 33, 89, 93, 99, 106
jack 10, 15, 32
protecting from power surge 24
troubleshooting 76
monitor
cleaning 50

port 9, 14
troubleshooting 79
mouse
cleaning 50
PS/2 port 10, 14
troubleshooting 80
USB port 7, 9, 12, 14
MP3 file
streaming 86
MP3 player
memory cards 39
Multifunction keyboard 30
features 31
multimedia
adjusting volume 32
playing DVD 43
using DVD drive 41
using Windows Media Player 43
multi-player game
playing 87
muting sound 31, 32
My Documents button 31

N

name
computer 95
domain 100, 108
router 100, 108
workgroup 95
naming
computers 95
workgroup 95
navigation keys 29, 30
network
jack 33
testing 109
troubleshooting 81, 119
using 115
network connection
selecting 87
network jack 10, 15
networking
games 87
sharing devices 86
sharing drives 86
sharing Internet connections 86
sharing printers 86
streaming audio 86
streaming video 86
New Connection Wizard 110
next button 31
Norton Antivirus 47
numeric keypad 29, 30
indicator 29, 30

O

online help 2, 4
button 31
online search
button 31
opening
computer case 54, 60
files across network 117
front bezel 61

P

Pad Lock indicator 29, 30
parallel port 10, 15
password 81
PDA
memory cards 39
peripheral devices 34
play button 31
playing
audio CD 43
DVD 43
multi-player games 87
Plug and Play devices
IEEE 1394 support for 34
USB support for 34
ports
See connections
power
button 7, 12
connector 9, 14
Hibernate mode 7, 12
indicator 7, 12
source problems 24
Standby/Resume 7, 12
troubleshooting 81
turning off computer 27
turning on computer 26

power button 7, 12
previous button 31
printer
 default 82
 inkjet 19
 installing 34
 laser 19
 parallel port 10, 15
 sharing 86, 113, 115
 troubleshooting 81
 USB port 7, 9, 12, 14
printing files across network 117
programming
 My Documents button 31
 shortcut buttons 31
programs
 closing unresponsive 28
PS/2 port
 keyboard 9, 14
 mouse 10, 14

R

RAM
 See memory
rebooting computer 28
recordable drive 7, 12, 19
 locating 7, 12
 troubleshooting 69
recording
 CDs 43
 DVDs 43
resetting computer 28
resources
 sharing 110
restarting computer 28
Resume mode 7, 12
router
 configuring 108
 name 100, 108

S

safety
 avoiding repetitive strain 24
 caring for computer 46
 general precautions 124
 guidelines for troubleshooting 68
 posture 23
 reducing eye strain 22
 setting up computer 23
 static electricity 53
scanner
 installing 34
screen
 cleaning 50
 troubleshooting 79
Scroll Lock indicator 29, 30
search button 31
searching in Help and Support 3
security features
 Kensington cable lock 10, 14
serial number 18
serial port 9, 14
service plan 4
setting up
 safety precautions 124
sharing
 devices 86
 drives 86, 113
 Internet connection 86, 110
 printer 86, 113, 115
 resources 110
shutting down computer 27, 28
sound
 adjusting 31, 32
 controls 31, 32
 muting 31, 32
speaker jack 9, 14
special-function buttons 31
specifications 18
Standby mode 7, 12
starting computer 7, 12, 26
static electricity 53
stop button 31
streaming audio and video 86
subnet mask
 entering 96
surge protector 24
S-Video (TV) out jack 14
system battery
 replacing 59, 65

T

tape backup drive 19
TCP/IP protocol
 configuring 96
technical support 18
telephone jack 9, 14
testing network 109
thumbscrews 9, 14
troubleshooting
 add-in cards 69
 cards 69
 CD drive 69
 cleaning CD 52
 cleaning DVD 52
 computer startup 71
 diskette drive 71
 display 72
 DVD drive 69
 DVD/CD drive 69
 Ethernet network 119
 faxes 77
 files 72
 general guidelines 68
 hard drive 73
 Internet connection 74, 77
 keyboard 75
 LCD panel 72, 79
 memory 75
 memory card reader 76
 modem 76
 monitor 79
 mouse 80
 network 81
 passwords 81
 power 81
 printer 81
 safety guidelines 68
 screen 79
 screen resolution 79
 Web site connection speed 74
turning off computer 7, 12, 27, 28
turning on computer 7, 12, 26
TV out (S-Video out) jack 14

U

uninterruptible power supply (UPS) 20, 24
updating
 device drivers 46
 Norton AntiVirus 47
 Windows 46
UPS 20, 24
USB port 7, 9, 12, 14, 34

V

video
 playing 43
 streaming 86
 S-Video out jack 14
video file
 streaming 86
viewing shared drives and folders 116
virus
 protecting against 47
 removing with Norton AntiVirus 47
voltage switch 9, 14, 25
volume
 adjusting 31, 32
 adjusting modem 78
 buttons 31
 controls 31, 32
 muting 31, 32
 troubleshooting 83

W

WAN IP Address 100, 108
Web browser
 button 31
Windows
 file and printer sharing 113
 New Connection Wizard 110
 Product Key Code 18
Windows key 29, 30
Windows Media Player 43
Windows Update 46
wired Ethernet
 equipment needed 93
 example 93
 setting up 106
 troubleshooting 119
 using 92
wireless Ethernet
 equipment needed 90

example 89
frequency 88
speed 88
troubleshooting 120
using 87
workgroup
naming 95
working safely 22

Z

Zip drive 19
identifying 38
using 38

NSK DWL E4300 USR GDE R1 12/04

